

Figure 1

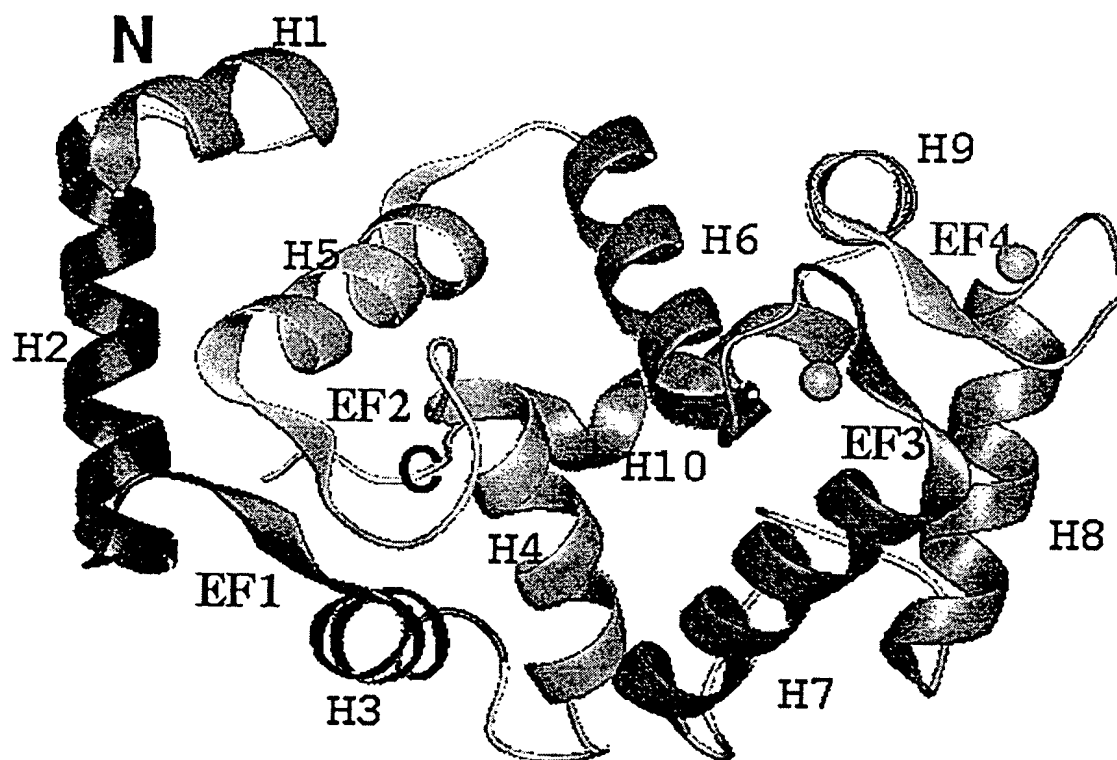


Figure 2

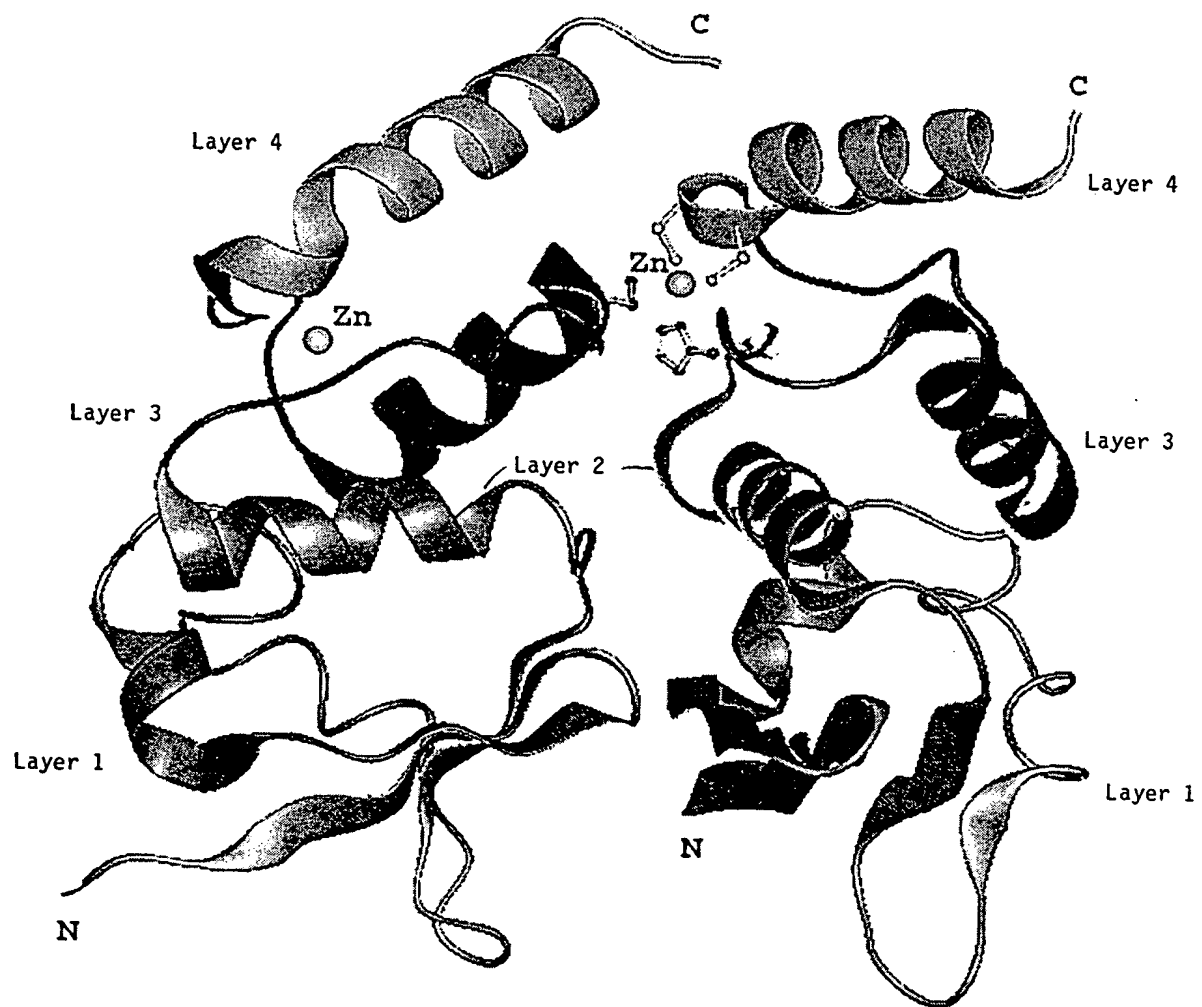


Figure 3

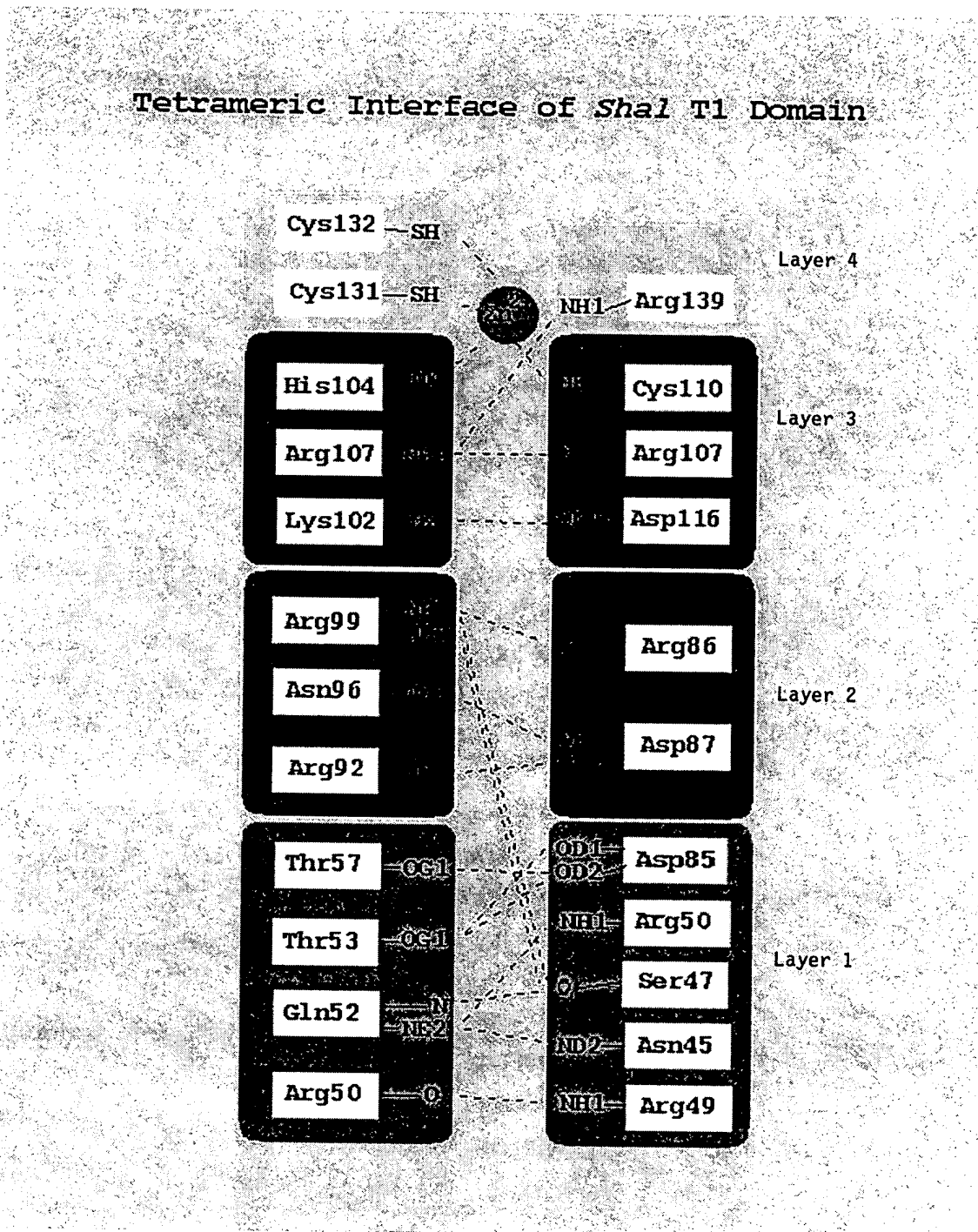


FIG. 4

	Atom		Res.	MOL.	Res.	X	Y	Z	OCC.	B		
	Type				No.							
ATOM	1	C	GLY	A	12	64.163	62.604	-15.738	1.00	65.88	A	C
ATOM	2	O	GLY	A	12	63.625	62.540	-14.631	1.00	65.73	A	O
ATOM	3	N	GLY	A	12	65.196	64.151	-17.424	1.00	66.13	A	N
ATOM	4	CA	GLY	A	12	65.244	63.633	-16.021	1.00	66.24	A	C
ATOM	5	N	LEU	A	13	63.843	61.796	-16.743	1.00	65.27	A	N
ATOM	6	CA	LEU	A	13	62.819	60.771	-16.602	1.00	64.67	A	C
ATOM	7	CB	LEU	A	13	62.442	60.217	-17.977	1.00	65.05	A	C
ATOM	8	CG	LEU	A	13	61.094	59.509	-18.095	1.00	65.11	A	C
ATOM	9	CD1	LEU	A	13	59.991	60.499	-17.791	1.00	65.51	A	C
ATOM	10	CD2	LEU	A	13	60.917	58.954	-19.497	1.00	65.52	A	C
ATOM	11	C	LEU	A	13	63.340	59.649	-15.711	1.00	63.76	A	C
ATOM	12	O	LEU	A	13	62.568	58.982	-15.030	1.00	62.85	A	O
ATOM	13	N	GLU	A	14	64.657	59.451	-15.727	1.00	63.13	A	N
ATOM	14	CA	GLU	A	14	65.293	58.418	-14.914	1.00	62.71	A	C
ATOM	15	CB	GLU	A	14	66.667	58.025	-15.489	1.00	63.85	A	C
ATOM	16	CG	GLU	A	14	67.835	57.372	-14.748	1.00	20.00	A	C
ATOM	17	CD	GLU	A	14	69.073	56.829	-15.424	1.00	20.00	A	C
ATOM	18	OE1	GLU	A	14	69.466	56.835	-16.582	1.00	20.00	A	O
ATOM	19	OE2	GLU	A	14	69.667	56.251	-14.517	1.00	20.00	A	O
ATOM	20	C	GLU	A	14	65.363	58.883	-13.468	1.00	61.13	A	C
ATOM	21	O	GLU	A	14	65.281	58.076	-12.536	1.00	61.29	A	O
ATOM	22	N	GLN	A	15	65.524	60.189	-13.284	1.00	58.80	A	N
ATOM	23	CA	GLN	A	15	65.586	60.750	-11.945	1.00	56.86	A	C
ATOM	24	CB	GLN	A	15	66.322	62.102	-11.918	1.00	57.77	A	C

FIG. 4A-1

ATOM	25	CG	GLN	A	15	66.278	62.386	-10.416	1.00	20.00	A	C
ATOM	26	CD	GLN	A	15	67.232	61.821	-9.390	1.00	20.00	A	C
ATOM	27	OE1	GLN	A	15	68.154	62.258	-8.722	1.00	20.00	A	O
ATOM	28	NE2	GLN	A	15	67.044	60.506	-9.618	1.00	20.00	A	N
ATOM	29	C	GLN	A	15	64.169	60.811	-11.414	1.00	54.63	A	C
ATOM	30	O	GLN	A	15	63.932	60.641	-10.218	1.00	54.90	A	O
ATOM	31	N	LEU	A	16	63.228	61.040	-12.323	1.00	51.85	A	N
ATOM	32	CA	LEU	A	16	61.821	61.131	-11.973	1.00	49.40	A	C
ATOM	33	CB	LEU	A	16	61.021	61.643	-13.171	1.00	49.77	A	C
ATOM	34	CG	LEU	A	16	59.865	62.618	-12.937	1.00	50.01	A	C
ATOM	35	CD1	LEU	A	16	59.016	62.648	-14.193	1.00	50.06	A	C
ATOM	36	CD2	LEU	A	16	59.017	62.203	-11.757	1.00	50.23	A	C
ATOM	37	C	LEU	A	16	61.302	59.754	-11.562	1.00	47.55	A	C
ATOM	38	O	LEU	A	16	60.574	59.619	-10.573	1.00	46.60	A	O
ATOM	39	N	GLU	A	17	61.683	58.736	-12.328	1.00	45.74	A	N
ATOM	40	CA	GLU	A	17	61.257	57.377	-12.043	1.00	44.79	A	C
ATOM	41	CB	GLU	A	17	61.730	56.419	-13.130	1.00	44.80	A	C
ATOM	42	CG	GLU	A	17	61.323	54.979	-12.858	1.00	45.54	A	C
ATOM	43	CD	GLU	A	17	61.824	54.003	-13.905	1.00	46.30	A	C
ATOM	44	OE1	GLU	A	17	61.483	52.808	-13.800	1.00	45.44	A	O
ATOM	45	OE2	GLU	A	17	62.554	54.423	-14.829	1.00	47.88	A	O
ATOM	46	C	GLU	A	17	61.798	56.901	-10.702	1.00	44.18	A	C
ATOM	47	O	GLU	A	17	61.132	56.166	-9.983	1.00	43.72	A	O
ATOM	48	N	ALA	A	18	63.012	57.319	-10.372	1.00	43.81	A	N
ATOM	49	CA	ALA	A	18	63.631	56.923	-9.116	1.00	43.50	A	C
ATOM	50	CB	ALA	A	18	65.113	57.279	-9.134	1.00	43.67	A	C
ATOM	51	C	ALA	A	18	62.957	57.562	-7.905	1.00	43.08	A	C
ATOM	52	O	ALA	A	18	62.997	57.010	-6.808	1.00	43.21	A	O
ATOM	53	N	GLN	A	19	62.321	58.712	-8.109	1.00	42.80	A	N
ATOM	54	CA	GLN	A	19	61.674	59.428	-7.015	1.00	42.54	A	C
ATOM	55	CB	GLN	A	19	61.895	60.929	-7.182	1.00	45.58	A	C
ATOM	56	CG	GLN	A	19	63.347	61.374	-7.115	1.00	49.60	A	C
ATOM	57	CD	GLN	A	19	63.506	62.832	-7.507	1.00	52.57	A	C
ATOM	58	OE1	GLN	A	19	63.231	63.207	-8.653	1.00	55.04	A	O
ATOM	59	NE2	GLN	A	19	63.938	63.667	-6.558	1.00	53.41	A	N
ATOM	60	C	GLN	A	19	60.182	59.183	-6.822	1.00	40.73	A	C
ATOM	61	O	GLN	A	19	59.621	59.598	-5.807	1.00	40.23	A	O
ATOM	62	N	THR	A	20	59.539	58.530	-7.787	1.00	37.97	A	N
ATOM	63	CA	THR	A	20	58.104	58.267	-7.701	1.00	35.16	A	C
ATOM	64	CB	THR	A	20	57.308	59.049	-8.794	1.00	34.85	A	C
ATOM	65	OG1	THR	A	20	57.760	58.659	-10.100	1.00	33.54	A	O
ATOM	66	CG2	THR	A	20	57.501	60.549	-8.624	1.00	33.13	A	C
ATOM	67	C	THR	A	20	57.779	56.782	-7.836	1.00	34.68	A	C
ATOM	68	O	THR	A	20	58.665	55.950	-8.024	1.00	33.92	A	O
ATOM	69	N	ASN	A	21	56.493	56.467	-7.748	1.00	32.63	A	N
ATOM	70	CA	ASN	A	21	56.023	55.099	-7.840	1.00	31.51	A	C
ATOM	71	CB	ASN	A	21	54.807	54.929	-6.935	1.00	31.76	A	C
ATOM	72	CG	ASN	A	21	55.117	55.244	-5.491	1.00	32.45	A	C
ATOM	73	OD1	ASN	A	21	54.434	56.050	-4.861	1.00	33.08	A	O
ATOM	74	ND2	ASN	A	21	56.159	54.611	-4.956	1.00	31.88	A	N
ATOM	75	C	ASN	A	21	55.656	54.689	-9.254	1.00	31.39	A	C
ATOM	76	O	ASN	A	21	54.796	53.835	-9.440	1.00	32.05	A	O
ATOM	77	N	PHE	A	22	56.308	55.284	-10.249	1.00	31.61	A	N
ATOM	78	CA	PHE	A	22	56.000	54.969	-11.646	1.00	31.39	A	C
ATOM	79	CB	PHE	A	22	55.459	56.218	-12.372	1.00	29.65	A	C
ATOM	80	CG	PHE	A	22	54.160	56.737	-11.814	1.00	28.15	A	C
ATOM	81	CD1	PHE	A	22	53.004	55.968	-11.876	1.00	26.04	A	C
ATOM	82	CD2	PHE	A	22	54.094	58.002	-11.228	1.00	27.53	A	C
ATOM	83	CE1	PHE	A	22	51.807	56.444	-11.366	1.00	25.05	A	C
ATOM	84	CE2	PHE	A	22	52.897	58.490	-10.714	1.00	24.86	A	C
ATOM	85	CZ	PHE	A	22	51.754	57.714	-10.782	1.00	25.45	A	C
ATOM	86	C	PHE	A	22	57.186	54.434	-12.435	1.00	31.89	A	C

FIG. 4A-2

ATOM	87	O	PHE	A	22	58.327	54.818	-12.181	1.00	32.53	A	O
ATOM	88	N	THR	A	23	56.906	53.559	-13.399	1.00	33.05	A	N
ATOM	89	CA	THR	A	23	57.948	53.006	-14.256	1.00	35.33	A	C
ATOM	90	CB	THR	A	23	57.548	51.640	-14.887	1.00	36.01	A	C
ATOM	91	OG1	THR	A	23	56.367	51.800	-15.686	1.00	34.53	A	O
ATOM	92	CG2	THR	A	23	57.304	50.593	-13.797	1.00	34.93	A	C
ATOM	93	C	THR	A	23	58.196	53.995	-15.384	1.00	36.79	A	C
ATOM	94	O	THR	A	23	57.472	54.975	-15.529	1.00	36.24	A	O
ATOM	95	N	LYS	A	24	59.218	53.729	-16.185	1.00	39.30	A	N
ATOM	96	CA	LYS	A	24	59.565	54.606	-17.293	1.00	41.86	A	C
ATOM	97	CB	LYS	A	24	60.853	54.126	-17.955	1.00	43.66	A	C
ATOM	98	CG	LYS	A	24	61.325	54.985	-19.113	1.00	47.68	A	C
ATOM	99	CD	LYS	A	24	62.850	55.009	-19.167	1.00	51.07	A	C
ATOM	100	CE	LYS	A	24	63.425	55.588	-17.868	1.00	52.24	A	C
ATOM	101	NZ	LYS	A	24	64.908	55.461	-17.775	1.00	53.91	A	N
ATOM	102	C	LYS	A	24	58.469	54.723	-18.343	1.00	42.67	A	C
ATOM	103	O	LYS	A	24	58.203	55.819	-18.838	1.00	41.90	A	O
ATOM	104	N	ARG	A	25	57.834	53.603	-18.683	1.00	43.74	A	N
ATOM	105	CA	ARG	A	25	56.797	53.633	-19.698	1.00	45.84	A	C
ATOM	106	CB	ARG	A	25	56.596	52.242	-20.311	1.00	48.97	A	C
ATOM	107	CG	ARG	A	25	55.637	51.330	-19.583	1.00	53.67	A	C
ATOM	108	CD	ARG	A	25	55.577	49.985	-20.289	1.00	58.35	A	C
ATOM	109	NE	ARG	A	25	56.919	49.426	-20.458	1.00	62.72	A	N
ATOM	110	CZ	ARG	A	25	57.187	48.273	-21.067	1.00	64.45	A	C
ATOM	111	NH1	ARG	A	25	56.200	47.541	-21.572	1.00	65.48	A	N
ATOM	112	NH2	ARG	A	25	58.446	47.860	-21.183	1.00	65.05	A	N
ATOM	113	C	ARG	A	25	55.478	54.186	-19.165	1.00	44.66	A	C
ATOM	114	O	ARG	A	25	54.652	54.674	-19.937	1.00	44.50	A	O
ATOM	115	N	GLU	A	26	55.272	54.106	-17.855	1.00	43.92	A	N
ATOM	116	CA	GLU	A	26	54.056	54.654	-17.268	1.00	43.12	A	C
ATOM	117	CB	GLU	A	26	53.875	54.200	-15.823	1.00	41.80	A	C
ATOM	118	CG	GLU	A	26	53.712	52.725	-15.634	1.00	40.63	A	C
ATOM	119	CD	GLU	A	26	53.397	52.376	-14.196	1.00	39.89	A	C
ATOM	120	OE1	GLU	A	26	54.009	52.993	-13.296	1.00	37.64	A	O
ATOM	121	OE2	GLU	A	26	52.547	51.486	-13.969	1.00	39.11	A	O
ATOM	122	C	GLU	A	26	54.197	56.172	-17.284	1.00	42.93	A	C
ATOM	123	O	GLU	A	26	53.219	56.898	-17.448	1.00	42.27	A	O
ATOM	124	N	LEU	A	27	55.426	56.639	-17.100	1.00	43.07	A	N
ATOM	125	CA	LEU	A	27	55.708	58.061	-17.095	1.00	44.73	A	C
ATOM	126	CB	LEU	A	27	57.153	58.315	-16.656	1.00	44.03	A	C
ATOM	127	CG	LEU	A	27	57.458	58.110	-15.168	1.00	44.04	A	C
ATOM	128	CD1	LEU	A	27	58.946	58.234	-14.919	1.00	43.17	A	C
ATOM	129	CD2	LEU	A	27	56.699	59.135	-14.351	1.00	43.80	A	C
ATOM	130	C	LEU	A	27	55.460	58.664	-18.474	1.00	46.59	A	C
ATOM	131	O	LEU	A	27	55.048	59.825	-18.585	1.00	48.04	A	O
ATOM	132	N	GLN	A	28	55.716	57.884	-19.522	1.00	46.84	A	N
ATOM	133	CA	GLN	A	28	55.491	58.356	-20.882	1.00	47.94	A	C
ATOM	134	CB	GLN	A	28	56.175	57.436	-21.892	1.00	48.96	A	C
ATOM	135	CG	GLN	A	28	57.542	57.935	-22.360	1.00	52.31	A	C
ATOM	136	CD	GLN	A	28	57.468	59.258	-23.129	1.00	54.50	A	C
ATOM	137	OE1	GLN	A	28	56.627	59.429	-24.024	1.00	55.65	A	O
ATOM	138	NE2	GLN	A	28	58.355	60.193	-22.789	1.00	54.39	A	N
ATOM	139	C	GLN	A	28	53.994	58.436	-21.170	1.00	47.69	A	C
ATOM	140	O	GLN	A	28	53.537	59.340	-21.865	1.00	46.81	A	O
ATOM	141	N	VAL	A	29	53.231	57.492	-20.632	1.00	47.29	A	N
ATOM	142	CA	VAL	A	29	51.791	57.503	-20.824	1.00	48.38	A	C
ATOM	143	CB	VAL	A	29	51.131	56.222	-20.267	1.00	49.02	A	C
ATOM	144	CG1	VAL	A	29	49.618	56.365	-20.288	1.00	47.98	A	C
ATOM	145	CG2	VAL	A	29	51.551	55.014	-21.093	1.00	50.04	A	C
ATOM	146	C	VAL	A	29	51.214	58.708	-20.084	1.00	48.92	A	C
ATOM	147	O	VAL	A	29	50.220	59.297	-20.517	1.00	49.72	A	O
ATOM	148	N	LEU	A	30	51.842	59.066	-18.966	1.00	48.76	A	N

FIG. 4A-3

ATOM	149	CA	LEU	A	30	51.397	60.199	-18.162	1.00	48.68	A	C
ATOM	150	CB	LEU	A	30	52.041	60.173	-16.771	1.00	49.80	A	C
ATOM	151	CG	LEU	A	30	51.414	59.240	-15.729	1.00	50.53	A	C
ATOM	152	CD1	LEU	A	30	52.202	59.300	-14.427	1.00	51.22	A	C
ATOM	153	CD2	LEU	A	30	49.973	59.650	-15.487	1.00	50.72	A	C
ATOM	154	C	LEU	A	30	51.734	61.506	-18.849	1.00	48.32	A	C
ATOM	155	O	LEU	A	30	50.946	62.442	-18.828	1.00	47.23	A	O
ATOM	156	N	TYR	A	31	52.913	61.563	-19.456	1.00	48.79	A	N
ATOM	157	CA	TYR	A	31	53.341	62.754	-20.167	1.00	50.28	A	C
ATOM	158	CB	TYR	A	31	54.763	62.562	-20.692	1.00	51.69	A	C
ATOM	159	CG	TYR	A	31	55.341	63.788	-21.360	1.00	53.33	A	C
ATOM	160	CD1	TYR	A	31	55.795	64.869	-20.607	1.00	53.99	A	C
ATOM	161	CE1	TYR	A	31	56.311	66.011	-21.221	1.00	54.75	A	C
ATOM	162	CD2	TYR	A	31	55.414	63.876	-22.749	1.00	54.56	A	C
ATOM	163	CE2	TYR	A	31	55.925	65.011	-23.374	1.00	55.20	A	C
ATOM	164	CZ	TYR	A	31	56.372	66.077	-22.606	1.00	55.50	A	C
ATOM	165	OH	TYR	A	31	56.878	67.203	-23.226	1.00	55.28	A	O
ATOM	166	C	TYR	A	31	52.385	63.008	-21.335	1.00	50.63	A	C
ATOM	167	O	TYR	A	31	51.893	64.127	-21.525	1.00	50.03	A	O
ATOM	168	N	ARG	A	32	52.125	61.958	-22.111	1.00	51.03	A	N
ATOM	169	CA	ARG	A	32	51.233	62.054	-23.258	1.00	51.78	A	C
ATOM	170	CB	ARG	A	32	51.069	60.680	-23.933	1.00	51.64	A	C
ATOM	171	CG	ARG	A	32	50.132	59.668	-23.274	1.00	20.00	A	C
ATOM	172	CD	ARG	A	32	50.693	58.363	-23.851	1.00	20.00	A	C
ATOM	173	NE	ARG	A	32	51.791	58.229	-24.812	1.00	20.00	A	N
ATOM	174	CZ	ARG	A	32	51.875	56.891	-24.933	1.00	20.00	A	C
ATOM	175	NH1	ARG	A	32	50.777	56.230	-25.255	1.00	20.00	A	N
ATOM	176	NH2	ARG	A	32	52.910	56.247	-24.387	1.00	20.00	A	N
ATOM	177	C	ARG	A	32	49.902	62.670	-22.848	1.00	52.10	A	C
ATOM	178	O	ARG	A	32	49.404	63.574	-23.511	1.00	52.81	A	O
ATOM	179	N	GLY	A	33	49.330	62.180	-21.754	1.00	51.76	A	N
ATOM	180	CA	GLY	A	33	48.061	62.709	-21.293	1.00	52.06	A	C
ATOM	181	C	GLY	A	33	48.183	64.135	-20.787	1.00	52.23	A	C
ATOM	182	O	GLY	A	33	47.245	64.930	-20.898	1.00	51.85	A	O
ATOM	183	N	PHE	A	34	49.354	64.455	-20.240	1.00	52.23	A	N
ATOM	184	CA	PHE	A	34	49.642	65.778	-19.690	1.00	52.14	A	C
ATOM	185	CB	PHE	A	34	51.001	65.768	-18.990	1.00	50.25	A	C
ATOM	186	CG	PHE	A	34	51.354	67.064	-18.335	1.00	48.78	A	C
ATOM	187	CD1	PHE	A	34	50.689	67.483	-17.185	1.00	47.95	A	C
ATOM	188	CD2	PHE	A	34	52.356	67.871	-18.865	1.00	48.17	A	C
ATOM	189	CE1	PHE	A	34	51.017	68.686	-16.569	1.00	47.18	A	C
ATOM	190	CE2	PHE	A	34	52.692	69.075	-18.258	1.00	48.22	A	C
ATOM	191	CZ	PHE	A	34	52.021	69.486	-17.106	1.00	47.63	A	C
ATOM	192	C	PHE	A	34	49.645	66.844	-20.778	1.00	53.18	A	C
ATOM	193	O	PHE	A	34	48.977	67.869	-20.647	1.00	52.52	A	O
ATOM	194	N	LYS	A	35	50.410	66.603	-21.841	1.00	54.12	A	N
ATOM	195	CA	LYS	A	35	50.484	67.540	-22.956	1.00	55.80	A	C
ATOM	196	CB	LYS	A	35	51.633	67.163	-23.909	1.00	55.12	A	C
ATOM	197	CG	LYS	A	35	53.044	67.097	-23.320	1.00	20.00	A	C
ATOM	198	CD	LYS	A	35	53.394	68.569	-23.541	1.00	20.00	A	C
ATOM	199	CE	LYS	A	35	54.721	69.239	-23.166	1.00	20.00	A	C
ATOM	200	NZ	LYS	A	35	55.232	70.467	-23.772	1.00	20.00	A	N
ATOM	201	C	LYS	A	35	49.134	67.628	-23.661	1.00	56.77	A	C
ATOM	202	O	LYS	A	35	48.729	68.689	-24.135	1.00	56.89	A	O
ATOM	203	N	ASN	A	36	48.439	66.499	-23.714	1.00	57.64	A	N
ATOM	204	CA	ASN	A	36	47.136	66.420	-24.346	1.00	58.51	A	C
ATOM	205	CB	ASN	A	36	46.551	65.027	-24.125	1.00	60.07	A	C
ATOM	206	CG	ASN	A	36	45.608	64.608	-25.228	1.00	61.20	A	C
ATOM	207	OD1	ASN	A	36	44.562	65.225	-25.441	1.00	61.61	A	O
ATOM	208	ND2	ASN	A	36	45.977	63.549	-25.945	1.00	62.29	A	N
ATOM	209	C	ASN	A	36	46.213	67.467	-23.739	1.00	58.82	A	C
ATOM	210	O	ASN	A	36	45.392	68.073	-24.428	1.00	59.37	A	O

FIG. 4A-4

ATOM	211	N	GLU	A	37	46.363	67.679	-22.438	1.00	58.58	A	N
ATOM	212	CA	GLU	A	37	45.542	68.641	-21.719	1.00	57.89	A	C
ATOM	213	CB	GLU	A	37	45.157	68.053	-20.359	1.00	59.65	A	C
ATOM	214	CG	GLU	A	37	44.271	68.942	-19.522	1.00	62.67	A	C
ATOM	215	CD	GLU	A	37	42.914	69.167	-20.157	1.00	64.76	A	C
ATOM	216	OE1	GLU	A	37	42.175	68.174	-20.332	1.00	65.67	A	O
ATOM	217	OE2	GLU	A	37	42.589	70.335	-20.479	1.00	66.29	A	O
ATOM	218	C	GLU	A	37	46.244	69.988	-21.526	1.00	56.21	A	C
ATOM	219	O	GLU	A	37	45.592	71.011	-21.340	1.00	55.68	A	O
ATOM	220	N	CYS	A	38	47.573	69.981	-21.578	1.00	55.03	A	N
ATOM	221	CA	CYS	A	38	48.365	71.193	-21.387	1.00	53.05	A	C
ATOM	222	CB	CYS	A	38	49.039	71.162	-20.020	1.00	52.85	A	C
ATOM	223	SG	CYS	A	38	47.901	70.848	-18.680	1.00	52.83	A	S
ATOM	224	C	CYS	A	38	49.432	71.315	-22.460	1.00	52.40	A	C
ATOM	225	O	CYS	A	38	50.604	71.016	-22.216	1.00	52.82	A	O
ATOM	226	N	PRO	A	39	49.038	71.775	-23.660	1.00	51.44	A	N
ATOM	227	CD	PRO	A	39	47.647	72.161	-23.963	1.00	51.77	A	C
ATOM	228	CA	PRO	A	39	49.889	71.969	-24.838	1.00	49.63	A	C
ATOM	229	CB	PRO	A	39	48.972	72.722	-25.792	1.00	51.10	A	C
ATOM	230	CG	PRO	A	39	47.634	72.144	-25.468	1.00	51.57	A	C
ATOM	231	C	PRO	A	39	51.208	72.699	-24.606	1.00	47.92	A	C
ATOM	232	O	PRO	A	39	52.227	72.331	-25.181	1.00	47.32	A	O
ATOM	233	N	SER	A	40	51.195	73.731	-23.772	1.00	46.76	A	N
ATOM	234	CA	SER	A	40	52.415	74.487	-23.496	1.00	46.17	A	C
ATOM	235	CB	SER	A	40	52.071	75.821	-22.831	1.00	44.62	A	C
ATOM	236	OG	SER	A	40	51.544	75.616	-21.536	1.00	43.71	A	O
ATOM	237	C	SER	A	40	53.392	73.710	-22.605	1.00	46.18	A	C
ATOM	238	O	SER	A	40	54.535	74.125	-22.400	1.00	45.92	A	O
ATOM	239	N	GLY	A	41	52.941	72.582	-22.070	1.00	45.93	A	N
ATOM	240	CA	GLY	A	41	53.811	71.799	-21.216	1.00	46.48	A	C
ATOM	241	C	GLY	A	41	53.725	72.157	-19.744	1.00	46.20	A	C
ATOM	242	O	GLY	A	41	54.322	71.483	-18.908	1.00	47.02	A	O
ATOM	243	N	VAL	A	42	53.004	73.220	-19.411	1.00	45.52	A	N
ATOM	244	CA	VAL	A	42	52.859	73.597	-18.013	1.00	45.46	A	C
ATOM	245	CB	VAL	A	42	53.781	74.783	-17.623	1.00	45.97	A	C
ATOM	246	CG1	VAL	A	42	55.197	74.501	-18.088	1.00	45.85	A	C
ATOM	247	CG2	VAL	A	42	53.258	76.082	-18.197	1.00	45.96	A	C
ATOM	248	C	VAL	A	42	51.415	73.962	-17.728	1.00	45.14	A	C
ATOM	249	O	VAL	A	42	50.653	74.270	-18.648	1.00	45.23	A	O
ATOM	250	N	VAL	A	43	51.044	73.917	-16.451	1.00	43.95	A	N
ATOM	251	CA	VAL	A	43	49.680	74.217	-16.041	1.00	43.08	A	C
ATOM	252	CB	VAL	A	43	49.065	73.039	-15.260	1.00	43.05	A	C
ATOM	253	CG1	VAL	A	43	47.560	73.182	-15.209	1.00	42.26	A	C
ATOM	254	CG2	VAL	A	43	49.482	71.721	-15.878	1.00	42.71	A	C
ATOM	255	C	VAL	A	43	49.627	75.428	-15.127	1.00	42.77	A	C
ATOM	256	O	VAL	A	43	50.328	75.472	-14.114	1.00	43.18	A	O
ATOM	257	N	ASN	A	44	48.807	76.413	-15.481	1.00	41.82	A	N
ATOM	258	CA	ASN	A	44	48.662	77.581	-14.630	1.00	41.08	A	C
ATOM	259	CB	ASN	A	44	48.543	78.871	-15.442	1.00	42.43	A	C
ATOM	260	CG	ASN	A	44	47.414	78.837	-16.440	1.00	43.67	A	C
ATOM	261	OD1	ASN	A	44	46.263	78.551	-16.098	1.00	43.79	A	O
ATOM	262	ND2	ASN	A	44	47.735	79.150	-17.690	1.00	44.64	A	N
ATOM	263	C	ASN	A	44	47.417	77.359	-13.796	1.00	40.36	A	C
ATOM	264	O	ASN	A	44	46.709	76.370	-13.986	1.00	39.36	A	O
ATOM	265	N	GLU	A	45	47.144	78.271	-12.875	1.00	39.94	A	N
ATOM	266	CA	GLU	A	45	45.999	78.108	-12.003	1.00	40.96	A	C
ATOM	267	CB	GLU	A	45	45.943	79.248	-10.997	1.00	40.19	A	C
ATOM	268	CG	GLU	A	45	44.854	79.073	-9.971	1.00	40.26	A	C
ATOM	269	CD	GLU	A	45	45.180	79.750	-8.665	1.00	39.58	A	C
ATOM	270	OE1	GLU	A	45	46.267	80.339	-8.562	1.00	40.29	A	O
ATOM	271	OE2	GLU	A	45	44.350	79.691	-7.735	1.00	41.93	A	O
ATOM	272	C	GLU	A	45	44.657	77.966	-12.708	1.00	41.65	A	C

FIG. 4A-5

ATOM	273	O	GLU	A	45	43.912	77.028	-12.422	1.00	42.38	A	O
ATOM	274	N	GLU	A	46	44.350	78.883	-13.623	1.00	42.50	A	N
ATOM	275	CA	GLU	A	46	43.084	78.843	-14.355	1.00	42.89	A	C
ATOM	276	CB	GLU	A	46	43.015	79.971	-15.384	1.00	44.77	A	C
ATOM	277	CG	GLU	A	46	42.722	81.317	-14.763	1.00	47.77	A	C
ATOM	278	CD	GLU	A	46	41.717	81.212	-13.623	1.00	50.29	A	C
ATOM	279	OE1	GLU	A	46	40.635	80.609	-13.814	1.00	52.22	A	O
ATOM	280	OE2	GLU	A	46	42.013	81.734	-12.528	1.00	51.61	A	O
ATOM	281	C	GLU	A	46	42.862	77.523	-15.052	1.00	41.66	A	C
ATOM	282	O	GLU	A	46	41.791	76.938	-14.965	1.00	41.76	A	O
ATOM	283	N	THR	A	47	43.878	77.063	-15.758	1.00	40.68	A	N
ATOM	284	CA	THR	A	47	43.790	75.797	-16.453	1.00	41.02	A	C
ATOM	285	CB	THR	A	47	45.121	75.474	-17.134	1.00	41.89	A	C
ATOM	286	OG1	THR	A	47	45.469	76.535	-18.032	1.00	42.27	A	O
ATOM	287	CG2	THR	A	47	45.017	74.180	-17.903	1.00	43.51	A	C
ATOM	288	C	THR	A	47	43.474	74.700	-15.436	1.00	40.95	A	C
ATOM	289	O	THR	A	47	42.644	73.815	-15.673	1.00	40.54	A	O
ATOM	290	N	PHE	A	48	44.150	74.771	-14.294	1.00	40.70	A	N
ATOM	291	CA	PHE	A	48	43.964	73.794	-13.236	1.00	38.83	A	C
ATOM	292	CB	PHE	A	48	44.988	74.017	-12.129	1.00	38.64	A	C
ATOM	293	CG	PHE	A	48	45.042	72.902	-11.140	1.00	38.28	A	C
ATOM	294	CD1	PHE	A	48	44.155	72.861	-10.071	1.00	38.40	A	C
ATOM	295	CD2	PHE	A	48	45.952	71.865	-11.303	1.00	37.80	A	C
ATOM	296	CE1	PHE	A	48	44.172	71.801	-9.179	1.00	38.86	A	C
ATOM	297	CE2	PHE	A	48	45.980	70.798	-10.419	1.00	38.87	A	C
ATOM	298	CZ	PHE	A	48	45.086	70.764	-9.351	1.00	38.76	A	C
ATOM	299	C	PHE	A	48	42.563	73.881	-12.672	1.00	38.35	A	C
ATOM	300	O	PHE	A	48	41.942	72.862	-12.385	1.00	36.55	A	O
ATOM	301	N	LYS	A	49	42.066	75.102	-12.518	1.00	39.14	A	N
ATOM	302	CA	LYS	A	49	40.724	75.305	-11.995	1.00	41.74	A	C
ATOM	303	CB	LYS	A	49	40.488	76.775	-11.669	1.00	41.44	A	C
ATOM	304	CG	LYS	A	49	41.200	77.251	-10.419	1.00	42.32	A	C
ATOM	305	CD	LYS	A	49	40.910	78.720	-10.197	1.00	44.05	A	C
ATOM	306	CE	LYS	A	49	41.501	79.222	-8.907	1.00	44.53	A	C
ATOM	307	NZ	LYS	A	49	41.167	80.660	-8.713	1.00	46.61	A	N
ATOM	308	C	LYS	A	49	39.674	74.831	-12.980	1.00	43.08	A	C
ATOM	309	O	LYS	A	49	38.624	74.330	-12.580	1.00	43.10	A	O
ATOM	310	N	GLN	A	50	39.962	74.993	-14.268	1.00	45.22	A	N
ATOM	311	CA	GLN	A	50	39.043	74.572	-15.318	1.00	47.50	A	C
ATOM	312	CB	GLN	A	50	39.557	75.027	-16.691	1.00	49.43	A	C
ATOM	313	CG	GLN	A	50	39.338	76.511	-16.994	1.00	51.80	A	C
ATOM	314	CD	GLN	A	50	40.147	77.007	-18.194	1.00	53.65	A	C
ATOM	315	OE1	GLN	A	50	40.223	76.344	-19.239	1.00	52.82	A	O
ATOM	316	NE2	GLN	A	50	40.746	78.189	-18.048	1.00	54.60	A	N
ATOM	317	C	GLN	A	50	38.914	73.056	-15.299	1.00	48.09	A	C
ATOM	318	O	GLN	A	50	37.812	72.510	-15.240	1.00	48.47	A	O
ATOM	319	N	ILE	A	51	40.057	72.386	-15.348	1.00	48.28	A	N
ATOM	320	CA	ILE	A	51	40.106	70.932	-15.341	1.00	48.52	A	C
ATOM	321	CB	ILE	A	51	41.570	70.446	-15.371	1.00	48.36	A	C
ATOM	322	CG2	ILE	A	51	41.627	68.934	-15.289	1.00	46.81	A	C
ATOM	323	CG1	ILE	A	51	42.255	70.968	-16.636	1.00	48.48	A	C
ATOM	324	CD1	ILE	A	51	43.774	70.856	-16.611	1.00	49.63	A	C
ATOM	325	C	ILE	A	51	39.422	70.357	-14.106	1.00	48.94	A	C
ATOM	326	O	ILE	A	51	38.608	69.439	-14.209	1.00	48.77	A	O
ATOM	327	N	TYR	A	52	39.747	70.909	-12.940	1.00	49.30	A	N
ATOM	328	CA	TYR	A	52	39.171	70.423	-11.692	1.00	49.14	A	C
ATOM	329	CB	TYR	A	52	39.881	71.043	-10.488	1.00	47.82	A	C
ATOM	330	CG	TYR	A	52	39.623	70.288	-9.204	1.00	47.50	A	C
ATOM	331	CD1	TYR	A	52	40.175	69.023	-8.996	1.00	47.37	A	C
ATOM	332	CE1	TYR	A	52	39.911	68.301	-7.837	1.00	47.62	A	C
ATOM	333	CD2	TYR	A	52	38.799	70.816	-8.215	1.00	47.82	A	C
ATOM	334	CE2	TYR	A	52	38.523	70.106	-7.047	1.00	48.11	A	C

FIG. 4A-6

ATOM	335	CZ	TYR	A	52	39.084	68.848	-6.863	1.00	48.79	A	C
ATOM	336	OH	TYR	A	52	38.826	68.147	-5.701	1.00	48.05	A	O
ATOM	337	C	TYR	A	52	37.677	70.689	-11.590	1.00	49.56	A	C
ATOM	338	O	TYR	A	52	36.928	69.849	-11.102	1.00	49.14	A	O
ATOM	339	N	ALA	A	53	37.248	71.855	-12.051	1.00	51.21	A	N
ATOM	340	CA	ALA	A	53	35.835	72.225	-12.007	1.00	54.20	A	C
ATOM	341	CB	ALA	A	53	35.592	73.443	-12.887	1.00	53.32	A	C
ATOM	342	C	ALA	A	53	34.907	71.087	-12.439	1.00	56.37	A	C
ATOM	343	O	ALA	A	53	33.860	70.855	-11.836	1.00	56.71	A	O
ATOM	344	N	GLN	A	54	35.300	70.372	-13.482	1.00	58.51	A	N
ATOM	345	CA	GLN	A	54	34.496	69.283	-14.004	1.00	61.16	A	C
ATOM	346	CB	GLN	A	54	35.173	68.731	-15.250	1.00	63.20	A	C
ATOM	347	CG	GLN	A	54	35.249	69.788	-16.344	1.00	66.37	A	C
ATOM	348	CD	GLN	A	54	36.193	69.416	-17.461	1.00	68.58	A	C
ATOM	349	OE1	GLN	A	54	37.400	69.271	-17.249	1.00	70.03	A	O
ATOM	350	NE2	GLN	A	54	35.651	69.259	-18.666	1.00	69.48	A	N
ATOM	351	C	GLN	A	54	34.169	68.168	-13.019	1.00	61.94	A	C
ATOM	352	O	GLN	A	54	33.132	67.523	-13.149	1.00	62.40	A	O
ATOM	353	N	PHE	A	55	35.031	67.934	-12.035	1.00	62.56	A	N
ATOM	354	CA	PHE	A	55	34.754	66.891	-11.047	1.00	63.43	A	C
ATOM	355	CB	PHE	A	55	35.981	66.613	-10.164	1.00	64.62	A	C
ATOM	356	CG	PHE	A	55	37.162	66.039	-10.900	1.00	66.36	A	C
ATOM	357	CD1	PHE	A	55	37.025	64.910	-11.700	1.00	67.06	A	C
ATOM	358	CD2	PHE	A	55	38.426	66.614	-10.765	1.00	66.81	A	C
ATOM	359	CE1	PHE	A	55	38.130	64.360	-12.354	1.00	67.35	A	C
ATOM	360	CE2	PHE	A	55	39.534	66.073	-11.413	1.00	66.99	A	C
ATOM	361	CZ	PHE	A	55	39.386	64.944	-12.209	1.00	67.37	A	C
ATOM	362	C	PHE	A	55	33.592	67.308	-10.138	1.00	63.19	A	C
ATOM	363	O	PHE	A	55	33.104	66.506	-9.343	1.00	62.64	A	O
ATOM	364	N	PHE	A	56	33.157	68.564	-10.255	1.00	63.32	A	N
ATOM	365	CA	PHE	A	56	32.073	69.098	-9.425	1.00	63.06	A	C
ATOM	366	CB	PHE	A	56	32.671	69.740	-8.173	1.00	63.71	A	C
ATOM	367	CG	PHE	A	56	33.397	68.771	-7.285	1.00	65.32	A	C
ATOM	368	CD1	PHE	A	56	32.720	68.086	-6.277	1.00	65.79	A	C
ATOM	369	CD2	PHE	A	56	34.755	68.522	-7.467	1.00	65.42	A	C
ATOM	370	CE1	PHE	A	56	33.385	67.167	-5.463	1.00	65.64	A	C
ATOM	371	CE2	PHE	A	56	35.429	67.605	-6.659	1.00	65.66	A	C
ATOM	372	CZ	PHE	A	56	34.743	66.926	-5.656	1.00	65.53	A	C
ATOM	373	C	PHE	A	56	31.198	70.125	-10.158	1.00	62.36	A	C
ATOM	374	O	PHE	A	56	31.315	71.330	-9.929	1.00	62.15	A	O
ATOM	375	N	PRO	A	57	30.296	69.657	-11.037	1.00	61.73	A	N
ATOM	376	CD	PRO	A	57	30.104	68.244	-11.416	1.00	61.31	A	C
ATOM	377	CA	PRO	A	57	29.396	70.527	-11.809	1.00	60.73	A	C
ATOM	378	CB	PRO	A	57	28.907	69.601	-12.916	1.00	60.59	A	C
ATOM	379	CG	PRO	A	57	28.807	68.291	-12.196	1.00	61.10	A	C
ATOM	380	C	PRO	A	57	28.236	71.149	-11.021	1.00	59.36	A	C
ATOM	381	O	PRO	A	57	27.583	72.078	-11.499	1.00	59.70	A	O
ATOM	382	N	HIS	A	58	27.983	70.640	-9.819	1.00	57.76	A	N
ATOM	383	CA	HIS	A	58	26.899	71.155	-8.992	1.00	55.74	A	C
ATOM	384	CB	HIS	A	58	26.214	70.012	-8.245	1.00	58.55	A	C
ATOM	385	CG	HIS	A	58	25.544	69.023	-9.142	1.00	61.37	A	C
ATOM	386	CD2	HIS	A	58	25.471	67.672	-9.086	1.00	62.20	A	C
ATOM	387	ND1	HIS	A	58	24.798	69.403	-10.237	1.00	62.96	A	N
ATOM	388	CE1	HIS	A	58	24.292	68.328	-10.816	1.00	63.82	A	C
ATOM	389	NE2	HIS	A	58	24.686	67.265	-10.137	1.00	63.56	A	N
ATOM	390	C	HIS	A	58	27.350	72.201	-7.983	1.00	53.03	A	C
ATOM	391	O	HIS	A	58	26.578	72.605	-7.107	1.00	52.56	A	O
ATOM	392	N	GLY	A	59	28.598	72.635	-8.097	1.00	49.78	A	N
ATOM	393	CA	GLY	A	59	29.097	73.636	-7.178	1.00	45.97	A	C
ATOM	394	C	GLY	A	59	30.189	74.478	-7.796	1.00	43.42	A	C
ATOM	395	O	GLY	A	59	30.415	74.437	-9.001	1.00	43.21	A	O
ATOM	396	N	ASP	A	60	30.862	75.251	-6.956	1.00	41.53	A	N

FIG. 4A-7

ATOM	397	CA	ASP	A	60	31.958	76.101	-7.389	1.00	39.59	A	C
ATOM	398	CB	ASP	A	60	31.673	77.553	-7.000	1.00	38.62	A	C
ATOM	399	CG	ASP	A	60	32.739	78.509	-7.485	1.00	38.52	A	C
ATOM	400	OD1	ASP	A	60	33.470	78.176	-8.438	1.00	39.59	A	O
ATOM	401	OD2	ASP	A	60	32.837	79.612	-6.918	1.00	39.71	A	O
ATOM	402	C	ASP	A	60	33.213	75.578	-6.691	1.00	38.80	A	C
ATOM	403	O	ASP	A	60	33.451	75.862	-5.511	1.00	37.66	A	O
ATOM	404	N	ALA	A	61	34.001	74.801	-7.433	1.00	38.03	A	N
ATOM	405	CA	ALA	A	61	35.222	74.192	-6.914	1.00	37.03	A	C
ATOM	406	CB	ALA	A	61	35.386	72.808	-7.519	1.00	37.39	A	C
ATOM	407	C	ALA	A	61	36.486	75.017	-7.166	1.00	36.71	A	C
ATOM	408	O	ALA	A	61	37.598	74.561	-6.886	1.00	37.45	A	O
ATOM	409	N	SER	A	62	36.317	76.229	-7.680	1.00	34.85	A	N
ATOM	410	CA	SER	A	62	37.454	77.080	-7.985	1.00	33.80	A	C
ATOM	411	CB	SER	A	62	36.988	78.367	-8.679	1.00	33.94	A	C
ATOM	412	OG	SER	A	62	36.204	79.159	-7.804	1.00	35.07	A	O
ATOM	413	C	SER	A	62	38.313	77.434	-6.776	1.00	33.56	A	C
ATOM	414	O	SER	A	62	39.544	77.448	-6.883	1.00	33.58	A	O
ATOM	415	N	THR	A	63	37.690	77.739	-5.636	1.00	33.14	A	N
ATOM	416	CA	THR	A	63	38.483	78.071	-4.453	1.00	33.90	A	C
ATOM	417	CB	THR	A	63	37.627	78.670	-3.319	1.00	34.92	A	C
ATOM	418	OG1	THR	A	63	36.495	77.833	-3.069	1.00	39.18	A	O
ATOM	419	CG2	THR	A	63	37.154	80.048	-3.691	1.00	36.07	A	C
ATOM	420	C	THR	A	63	39.248	76.847	-3.930	1.00	32.63	A	C
ATOM	421	O	THR	A	63	40.409	76.964	-3.547	1.00	32.30	A	O
ATOM	422	N	TYR	A	64	38.615	75.674	-3.934	1.00	32.03	A	N
ATOM	423	CA	TYR	A	64	39.303	74.472	-3.474	1.00	30.88	A	C
ATOM	424	CB	TYR	A	64	38.303	73.343	-3.417	1.00	31.48	A	C
ATOM	425	CG	TYR	A	64	38.975	72.150	-2.782	1.00	33.10	A	C
ATOM	426	CD1	TYR	A	64	39.193	72.120	-1.408	1.00	32.96	A	C
ATOM	427	CE1	TYR	A	64	39.802	71.021	-0.822	1.00	34.55	A	C
ATOM	428	CD2	TYR	A	64	39.382	71.072	-3.569	1.00	33.06	A	C
ATOM	429	CE2	TYR	A	64	40.001	69.977	-2.985	1.00	33.71	A	C
ATOM	430	CZ	TYR	A	64	40.215	69.951	-1.619	1.00	34.25	A	C
ATOM	431	OH	TYR	A	64	40.822	68.860	-1.029	1.00	20.00	A	O
ATOM	432	C	TYR	A	64	40.399	74.145	-4.481	1.00	29.16	A	C
ATOM	433	O	TYR	A	64	41.521	73.798	-4.104	1.00	28.07	A	O
ATOM	434	N	ALA	A	65	40.072	74.259	-5.766	1.00	28.39	A	N
ATOM	435	CA	ALA	A	65	41.052	73.982	-6.811	1.00	28.35	A	C
ATOM	436	CB	ALA	A	65	40.431	74.170	-8.212	1.00	28.19	A	C
ATOM	437	C	ALA	A	65	42.243	74.922	-6.612	1.00	28.48	A	C
ATOM	438	O	ALA	A	65	43.383	74.584	-6.962	1.00	29.32	A	O
ATOM	439	N	HIS	A	66	41.975	76.099	-6.050	1.00	27.68	A	N
ATOM	440	CA	HIS	A	66	43.033	77.064	-5.772	1.00	29.28	A	C
ATOM	441	CB	HIS	A	66	42.447	78.367	-5.216	1.00	30.10	A	C
ATOM	442	CG	HIS	A	66	43.447	79.209	-4.484	1.00	31.01	A	C
ATOM	443	CD2	HIS	A	66	43.679	79.363	-3.158	1.00	30.37	A	C
ATOM	444	ND1	HIS	A	66	44.411	79.953	-5.131	1.00	31.14	A	N
ATOM	445	CE1	HIS	A	66	45.194	80.527	-4.234	1.00	29.99	A	C
ATOM	446	NE2	HIS	A	66	44.773	80.184	-3.031	1.00	30.15	A	N
ATOM	447	C	HIS	A	66	44.014	76.485	-4.747	1.00	29.55	A	C
ATOM	448	O	HIS	A	66	45.224	76.556	-4.920	1.00	30.16	A	O
ATOM	449	N	TYR	A	67	43.486	75.920	-3.668	1.00	30.26	A	N
ATOM	450	CA	TYR	A	67	44.337	75.341	-2.639	1.00	30.72	A	C
ATOM	451	CB	TYR	A	67	43.504	75.006	-1.404	1.00	30.28	A	C
ATOM	452	CG	TYR	A	67	43.066	76.237	-0.649	1.00	31.08	A	C
ATOM	453	CD1	TYR	A	67	44.011	77.118	-0.122	1.00	31.42	A	C
ATOM	454	CE1	TYR	A	67	43.631	78.262	0.561	1.00	31.78	A	C
ATOM	455	CD2	TYR	A	67	41.713	76.535	-0.469	1.00	32.33	A	C
ATOM	456	CE2	TYR	A	67	41.316	77.686	0.218	1.00	32.63	A	C
ATOM	457	CZ	TYR	A	67	42.289	78.545	0.731	1.00	32.59	A	C
ATOM	458	OH	TYR	A	67	41.930	79.685	1.414	1.00	33.57	A	O

FIG. 4A-8

ATOM	459	C	TYR	A	67	45.031	74.100	-3.178	1.00	31.03	A	C
ATOM	460	O	TYR	A	67	46.195	73.840	-2.873	1.00	32.08	A	O
ATOM	461	N	LEU	A	68	44.312	73.347	-4.001	1.00	31.15	A	N
ATOM	462	CA	LEU	A	68	44.860	72.140	-4.602	1.00	31.63	A	C
ATOM	463	CB	LEU	A	68	43.760	71.426	-5.388	1.00	31.69	A	C
ATOM	464	CG	LEU	A	68	43.857	69.900	-5.433	1.00	33.63	A	C
ATOM	465	CD1	LEU	A	68	43.989	69.349	-4.022	1.00	32.61	A	C
ATOM	466	CD2	LEU	A	68	42.619	69.333	-6.112	1.00	33.31	A	C
ATOM	467	C	LEU	A	68	46.045	72.501	-5.520	1.00	31.42	A	C
ATOM	468	O	LEU	A	68	47.070	71.809	-5.549	1.00	30.60	A	O
ATOM	469	N	PHE	A	69	45.897	73.602	-6.253	1.00	31.27	A	N
ATOM	470	CA	PHE	A	69	46.937	74.070	-7.157	1.00	31.28	A	C
ATOM	471	CB	PHE	A	69	46.480	75.341	-7.877	1.00	32.50	A	C
ATOM	472	CG	PHE	A	69	47.511	75.904	-8.820	1.00	33.85	A	C
ATOM	473	CD1	PHE	A	69	47.802	75.257	-10.020	1.00	33.47	A	C
ATOM	474	CD2	PHE	A	69	48.204	77.070	-8.498	1.00	34.00	A	C
ATOM	475	CE1	PHE	A	69	48.769	75.760	-10.891	1.00	34.54	A	C
ATOM	476	CE2	PHE	A	69	49.181	77.589	-9.363	1.00	35.26	A	C
ATOM	477	CZ	PHE	A	69	49.465	76.930	-10.564	1.00	34.82	A	C
ATOM	478	C	PHE	A	69	48.242	74.364	-6.411	1.00	30.72	A	C
ATOM	479	O	PHE	A	69	49.303	73.874	-6.794	1.00	30.19	A	O
ATOM	480	N	ASN	A	70	48.156	75.173	-5.353	1.00	31.09	A	N
ATOM	481	CA	ASN	A	70	49.328	75.536	-4.562	1.00	30.67	A	C
ATOM	482	CB	ASN	A	70	48.922	76.509	-3.440	1.00	33.81	A	C
ATOM	483	CG	ASN	A	70	49.005	77.948	-3.879	1.00	36.46	A	C
ATOM	484	OD1	ASN	A	70	48.902	79.039	-3.325	1.00	39.43	A	O
ATOM	485	ND2	ASN	A	70	49.593	77.785	-5.076	1.00	37.82	A	N
ATOM	486	C	ASN	A	70	50.055	74.312	-4.020	1.00	29.56	A	C
ATOM	487	O	ASN	A	70	51.282	74.274	-4.011	1.00	30.04	A	O
ATOM	488	N	ALA	A	71	49.295	73.315	-3.577	1.00	28.17	A	N
ATOM	489	CA	ALA	A	71	49.879	72.087	-3.056	1.00	27.97	A	C
ATOM	490	CB	ALA	A	71	48.789	71.199	-2.471	1.00	26.70	A	C
ATOM	491	C	ALA	A	71	50.650	71.340	-4.157	1.00	27.98	A	C
ATOM	492	O	ALA	A	71	51.620	70.634	-3.873	1.00	28.18	A	O
ATOM	493	N	PHE	A	72	50.215	71.495	-5.407	1.00	27.64	A	N
ATOM	494	CA	PHE	A	72	50.896	70.863	-6.537	1.00	27.38	A	C
ATOM	495	CB	PHE	A	72	50.002	70.814	-7.781	1.00	24.82	A	C
ATOM	496	CG	PHE	A	72	49.156	69.580	-7.891	1.00	22.86	A	C
ATOM	497	CD1	PHE	A	72	48.117	69.344	-7.000	1.00	21.89	A	C
ATOM	498	CD2	PHE	A	72	49.370	68.675	-8.921	1.00	21.93	A	C
ATOM	499	CE1	PHE	A	72	47.290	68.223	-7.136	1.00	22.35	A	C
ATOM	500	CE2	PHE	A	72	48.549	67.545	-9.068	1.00	22.50	A	C
ATOM	501	CZ	PHE	A	72	47.505	67.320	-8.174	1.00	20.82	A	C
ATOM	502	C	PHE	A	72	52.114	71.700	-6.882	1.00	28.87	A	C
ATOM	503	O	PHE	A	72	53.157	71.178	-7.251	1.00	29.03	A	O
ATOM	504	N	ASP	A	73	51.956	73.015	-6.768	1.00	30.99	A	N
ATOM	505	CA	ASP	A	73	53.020	73.955	-7.087	1.00	33.55	A	C
ATOM	506	CB	ASP	A	73	52.393	75.322	-7.402	1.00	31.25	A	C
ATOM	507	CG	ASP	A	73	53.415	76.358	-7.858	1.00	30.44	A	C
ATOM	508	OD1	ASP	A	73	54.362	76.009	-8.599	1.00	28.44	A	O
ATOM	509	OD2	ASP	A	73	53.249	77.537	-7.486	1.00	30.39	A	O
ATOM	510	C	ASP	A	73	54.008	74.060	-5.922	1.00	36.40	A	C
ATOM	511	O	ASP	A	73	54.062	75.081	-5.241	1.00	36.87	A	O
ATOM	512	N	THR	A	74	54.782	72.999	-5.699	1.00	38.77	A	N
ATOM	513	CA	THR	A	74	55.754	72.968	-4.607	1.00	41.44	A	C
ATOM	514	CB	THR	A	74	56.427	71.574	-4.471	1.00	39.77	A	C
ATOM	515	OG1	THR	A	74	56.934	71.157	-5.741	1.00	39.38	A	O
ATOM	516	CG2	THR	A	74	55.439	70.552	-3.959	1.00	39.15	A	C
ATOM	517	C	THR	A	74	56.852	74.021	-4.752	1.00	43.85	A	C
ATOM	518	O	THR	A	74	57.296	74.604	-3.756	1.00	44.49	A	O
ATOM	519	N	THR	A	75	57.291	74.266	-5.983	1.00	45.93	A	N
ATOM	520	CA	THR	A	75	58.331	75.260	-6.204	1.00	47.91	A	C

FIG. 4A-9

ATOM	521	CB	THR	A	75	58.963	75.117	-7.599	1.00	48.33	A	C
ATOM	522	OG1	THR	A	75	57.979	75.377	-8.605	1.00	48.93	A	O
ATOM	523	CG2	THR	A	75	59.505	73.709	-7.787	1.00	48.99	A	C
ATOM	524	C	THR	A	75	57.760	76.667	-6.048	1.00	48.76	A	C
ATOM	525	O	THR	A	75	58.485	77.649	-6.140	1.00	49.03	A	O
ATOM	526	N	GLN	A	76	56.456	76.754	-5.809	1.00	50.04	A	N
ATOM	527	CA	GLN	A	76	55.788	78.038	-5.620	1.00	51.48	A	C
ATOM	528	CB	GLN	A	76	56.224	78.648	-4.287	1.00	53.32	A	C
ATOM	529	CG	GLN	A	76	55.751	77.852	-3.088	1.00	55.76	A	C
ATOM	530	CD	GLN	A	76	54.247	77.944	-2.904	1.00	58.05	A	C
ATOM	531	OE1	GLN	A	76	53.731	78.959	-2.432	1.00	60.18	A	O
ATOM	532	NE2	GLN	A	76	53.532	76.890	-3.289	1.00	58.52	A	N
ATOM	533	C	GLN	A	76	56.057	79.019	-6.755	1.00	51.40	A	C
ATOM	534	O	GLN	A	76	56.177	80.223	-6.535	1.00	51.64	A	O
ATOM	535	N	THR	A	77	56.140	78.495	-7.973	1.00	51.49	A	N
ATOM	536	CA	THR	A	77	56.397	79.310	-9.153	1.00	50.88	A	C
ATOM	537	CB	THR	A	77	57.233	78.532	-10.180	1.00	51.67	A	C
ATOM	538	OG1	THR	A	77	57.218	79.231	-11.426	1.00	54.17	A	O
ATOM	539	CG2	THR	A	77	56.658	77.152	-10.406	1.00	52.53	A	C
ATOM	540	C	THR	A	77	55.127	79.787	-9.853	1.00	49.93	A	C
ATOM	541	O	THR	A	77	55.197	80.569	-10.799	1.00	50.01	A	O
ATOM	542	N	GLY	A	78	53.970	79.325	-9.389	1.00	48.87	A	N
ATOM	543	CA	GLY	A	78	52.723	79.707	-10.025	1.00	46.56	A	C
ATOM	544	C	GLY	A	78	52.547	78.907	-11.306	1.00	45.48	A	C
ATOM	545	O	GLY	A	78	51.585	79.091	-12.044	1.00	45.97	A	O
ATOM	546	N	SER	A	79	53.483	78.001	-11.566	1.00	44.44	A	N
ATOM	547	CA	SER	A	79	53.438	77.166	-12.765	1.00	43.97	A	C
ATOM	548	CB	SER	A	79	54.436	77.695	-13.799	1.00	43.48	A	C
ATOM	549	OG	SER	A	79	54.476	76.855	-14.940	1.00	45.71	A	O
ATOM	550	C	SER	A	79	53.753	75.697	-12.463	1.00	42.37	A	C
ATOM	551	O	SER	A	79	54.882	75.361	-12.106	1.00	42.57	A	O
ATOM	552	N	VAL	A	80	52.767	74.820	-12.617	1.00	41.18	A	N
ATOM	553	CA	VAL	A	80	52.994	73.400	-12.351	1.00	40.51	A	C
ATOM	554	CB	VAL	A	80	51.700	72.684	-11.889	1.00	40.18	A	C
ATOM	555	CG1	VAL	A	80	51.938	71.176	-11.817	1.00	40.46	A	C
ATOM	556	CG2	VAL	A	80	51.258	73.218	-10.527	1.00	37.93	A	C
ATOM	557	C	VAL	A	80	53.555	72.651	-13.559	1.00	40.49	A	C
ATOM	558	O	VAL	A	80	52.880	72.480	-14.573	1.00	41.01	A	O
ATOM	559	N	LYS	A	81	54.802	72.207	-13.437	1.00	40.50	A	N
ATOM	560	CA	LYS	A	81	55.472	71.464	-14.497	1.00	40.17	A	C
ATOM	561	CB	LYS	A	81	56.964	71.522	-14.255	1.00	41.22	A	C
ATOM	562	CG	LYS	A	81	57.559	72.884	-14.627	1.00	42.21	A	C
ATOM	563	CD	LYS	A	81	58.657	73.328	-13.658	1.00	43.55	A	C
ATOM	564	CE	LYS	A	81	58.177	74.409	-12.684	1.00	20.00	A	C
ATOM	565	NZ	LYS	A	81	59.201	74.646	-11.668	1.00	20.00	A	N
ATOM	566	C	LYS	A	81	55.001	70.014	-14.458	1.00	39.72	A	C
ATOM	567	O	LYS	A	81	54.283	69.603	-13.545	1.00	39.42	A	O
ATOM	568	N	PHE	A	82	55.431	69.239	-15.443	1.00	39.33	A	N
ATOM	569	CA	PHE	A	82	55.062	67.840	-15.524	1.00	39.18	A	C
ATOM	570	CB	PHE	A	82	55.644	67.220	-16.791	1.00	36.85	A	C
ATOM	571	CG	PHE	A	82	55.413	65.742	-16.899	1.00	35.87	A	C
ATOM	572	CD1	PHE	A	82	54.119	65.226	-16.906	1.00	34.35	A	C
ATOM	573	CD2	PHE	A	82	56.491	64.861	-16.988	1.00	34.85	A	C
ATOM	574	CE1	PHE	A	82	53.895	63.856	-17.000	1.00	33.30	A	C
ATOM	575	CE2	PHE	A	82	56.280	63.494	-17.083	1.00	34.64	A	C
ATOM	576	CZ	PHE	A	82	54.975	62.988	-17.090	1.00	34.51	A	C
ATOM	577	C	PHE	A	82	55.537	67.056	-14.299	1.00	40.63	A	C
ATOM	578	O	PHE	A	82	54.778	66.280	-13.714	1.00	40.19	A	O
ATOM	579	N	GLU	A	83	56.788	67.255	-13.902	1.00	42.20	A	N
ATOM	580	CA	GLU	A	83	57.284	66.517	-12.754	1.00	44.49	A	C
ATOM	581	CB	GLU	A	83	58.789	66.769	-12.526	1.00	46.99	A	C
ATOM	582	CG	GLU	A	83	59.209	68.199	-12.244	1.00	51.84	A	C

FIG. 4A-10

ATOM	583	CD	GLU	A	83	60.711	68.318	-11.962	1.00	55.87	A	C
ATOM	584	OE1	GLU	A	83	61.206	69.458	-11.799	1.00	57.81	A	O
ATOM	585	OE2	GLU	A	83	61.401	67.271	-11.897	1.00	57.94	A	O
ATOM	586	C	GLU	A	83	56.477	66.821	-11.497	1.00	43.36	A	C
ATOM	587	O	GLU	A	83	56.203	65.918	-10.712	1.00	42.77	A	O
ATOM	588	N	ASP	A	84	56.071	68.076	-11.318	1.00	42.78	A	N
ATOM	589	CA	ASP	A	84	55.293	68.448	-10.137	1.00	42.75	A	C
ATOM	590	CB	ASP	A	84	54.910	69.931	-10.154	1.00	44.39	A	C
ATOM	591	CG	ASP	A	84	56.102	70.841	-10.314	1.00	46.72	A	C
ATOM	592	OD1	ASP	A	84	57.187	70.491	-9.791	1.00	47.26	A	O
ATOM	593	OD2	ASP	A	84	55.949	71.910	-10.955	1.00	47.64	A	O
ATOM	594	C	ASP	A	84	54.024	67.643	-10.145	1.00	41.52	A	C
ATOM	595	O	ASP	A	84	53.579	67.124	-9.122	1.00	41.67	A	O
ATOM	596	N	PHE	A	85	53.448	67.567	-11.334	1.00	41.14	A	N
ATOM	597	CA	PHE	A	85	52.210	66.862	-11.582	1.00	39.04	A	C
ATOM	598	CB	PHE	A	85	51.820	67.031	-13.050	1.00	40.51	A	C
ATOM	599	CG	PHE	A	85	50.446	66.542	-13.358	1.00	42.80	A	C
ATOM	600	CD1	PHE	A	85	49.334	67.318	-13.039	1.00	43.86	A	C
ATOM	601	CD2	PHE	A	85	50.256	65.290	-13.927	1.00	44.09	A	C
ATOM	602	CE1	PHE	A	85	48.046	66.853	-13.281	1.00	45.60	A	C
ATOM	603	CE2	PHE	A	85	48.973	64.809	-14.175	1.00	45.64	A	C
ATOM	604	CZ	PHE	A	85	47.864	65.594	-13.850	1.00	46.43	A	C
ATOM	605	C	PHE	A	85	52.320	65.379	-11.253	1.00	37.42	A	C
ATOM	606	O	PHE	A	85	51.448	64.832	-10.588	1.00	35.98	A	O
ATOM	607	N	VAL	A	86	53.385	64.736	-11.735	1.00	36.44	A	N
ATOM	608	CA	VAL	A	86	53.596	63.312	-11.491	1.00	36.35	A	C
ATOM	609	CB	VAL	A	86	54.702	62.724	-12.405	1.00	37.13	A	C
ATOM	610	CG1	VAL	A	86	54.131	62.405	-13.780	1.00	37.91	A	C
ATOM	611	CG2	VAL	A	86	55.830	63.703	-12.540	1.00	37.67	A	C
ATOM	612	C	VAL	A	86	53.968	63.057	-10.041	1.00	34.95	A	C
ATOM	613	O	VAL	A	86	53.526	62.083	-9.437	1.00	35.19	A	O
ATOM	614	N	THR	A	87	54.781	63.944	-9.485	1.00	33.62	A	N
ATOM	615	CA	THR	A	87	55.193	63.834	-8.100	1.00	32.27	A	C
ATOM	616	CB	THR	A	87	56.123	65.016	-7.716	1.00	33.50	A	C
ATOM	617	OG1	THR	A	87	57.359	64.902	-8.439	1.00	33.14	A	O
ATOM	618	CG2	THR	A	87	56.408	65.026	-6.213	1.00	32.45	A	C
ATOM	619	C	THR	A	87	53.966	63.807	-7.180	1.00	31.40	A	C
ATOM	620	O	THR	A	87	53.923	63.033	-6.228	1.00	31.47	A	O
ATOM	621	N	ALA	A	88	52.961	64.636	-7.463	1.00	30.15	A	N
ATOM	622	CA	ALA	A	88	51.759	64.654	-6.623	1.00	28.94	A	C
ATOM	623	CB	ALA	A	88	50.977	65.937	-6.840	1.00	28.27	A	C
ATOM	624	C	ALA	A	88	50.878	63.451	-6.921	1.00	28.61	A	C
ATOM	625	O	ALA	A	88	50.215	62.915	-6.039	1.00	28.30	A	O
ATOM	626	N	LEU	A	89	50.867	63.030	-8.177	1.00	28.82	A	N
ATOM	627	CA	LEU	A	89	50.065	61.883	-8.567	1.00	30.54	A	C
ATOM	628	CB	LEU	A	89	49.974	61.780	-10.093	1.00	31.99	A	C
ATOM	629	CG	LEU	A	89	48.546	62.031	-10.587	1.00	33.85	A	C
ATOM	630	CD1	LEU	A	89	48.546	62.243	-12.080	1.00	36.98	A	C
ATOM	631	CD2	LEU	A	89	47.659	60.853	-10.221	1.00	34.12	A	C
ATOM	632	C	LEU	A	89	50.640	60.600	-7.994	1.00	29.50	A	C
ATOM	633	O	LEU	A	89	49.895	59.711	-7.606	1.00	30.20	A	O
ATOM	634	N	SER	A	90	51.963	60.518	-7.949	1.00	28.85	A	N
ATOM	635	CA	SER	A	90	52.648	59.352	-7.417	1.00	30.03	A	C
ATOM	636	CB	SER	A	90	54.154	59.618	-7.363	1.00	31.84	A	C
ATOM	637	OG	SER	A	90	54.864	58.524	-6.796	1.00	36.25	A	O
ATOM	638	C	SER	A	90	52.115	59.061	-6.016	1.00	29.31	A	C
ATOM	639	O	SER	A	90	51.840	57.914	-5.672	1.00	27.98	A	O
ATOM	640	N	ILE	A	91	51.970	60.123	-5.229	1.00	27.85	A	N
ATOM	641	CA	ILE	A	91	51.468	60.038	-3.870	1.00	28.44	A	C
ATOM	642	CB	ILE	A	91	51.880	61.298	-3.085	1.00	28.56	A	C
ATOM	643	CG2	ILE	A	91	51.103	61.245	-1.757	1.00	28.30	A	C
ATOM	644	CG1	ILE	A	91	53.310	61.743	-2.774	1.00	29.04	A	C

FIG. 4A-11

ATOM	645	CD1	ILE	A	91	53.976	63.079	-3.108	1.00	20.00	A	C
ATOM	646	C	ILE	A	91	49.954	59.796	-3.832	1.00	28.99	A	C
ATOM	647	O	ILE	A	91	49.487	58.799	-3.274	1.00	30.63	A	O
ATOM	648	N	LEU	A	92	49.193	60.702	-4.437	1.00	28.76	A	N
ATOM	649	CA	LEU	A	92	47.741	60.605	-4.456	1.00	29.36	A	C
ATOM	650	CB	LEU	A	92	47.145	61.795	-5.213	1.00	30.85	A	C
ATOM	651	CG	LEU	A	92	46.694	63.034	-4.434	1.00	31.77	A	C
ATOM	652	CD1	LEU	A	92	47.583	63.297	-3.239	1.00	32.28	A	C
ATOM	653	CD2	LEU	A	92	46.709	64.219	-5.385	1.00	34.00	A	C
ATOM	654	C	LEU	A	92	47.214	59.321	-5.067	1.00	29.89	A	C
ATOM	655	O	LEU	A	92	46.221	58.774	-4.595	1.00	30.08	A	O
ATOM	656	N	LEU	A	93	47.867	58.845	-6.121	1.00	29.81	A	N
ATOM	657	CA	LEU	A	93	47.424	57.625	-6.779	1.00	31.74	A	C
ATOM	658	CB	LEU	A	93	47.835	57.625	-8.253	1.00	32.18	A	C
ATOM	659	CG	LEU	A	93	47.444	56.301	-8.915	1.00	33.07	A	C
ATOM	660	CD1	LEU	A	93	45.922	56.180	-8.854	1.00	34.56	A	C
ATOM	661	CD2	LEU	A	93	47.949	56.213	-10.355	1.00	33.22	A	C
ATOM	662	C	LEU	A	93	47.916	56.320	-6.145	1.00	32.82	A	C
ATOM	663	O	LEU	A	93	47.132	55.402	-5.921	1.00	33.95	A	O
ATOM	664	N	ARG	A	94	49.210	56.216	-5.875	1.00	33.25	A	N
ATOM	665	CA	ARG	A	94	49.712	54.983	-5.298	1.00	33.50	A	C
ATOM	666	CB	ARG	A	94	50.395	54.137	-6.391	1.00	35.06	A	C
ATOM	667	CG	ARG	A	94	51.272	54.914	-7.339	1.00	36.17	A	C
ATOM	668	CD	ARG	A	94	51.978	54.014	-8.351	1.00	36.55	A	C
ATOM	669	NE	ARG	A	94	51.102	53.414	-9.360	1.00	36.08	A	N
ATOM	670	CZ	ARG	A	94	51.549	52.805	-10.460	1.00	35.79	A	C
ATOM	671	NH1	ARG	A	94	52.854	52.725	-10.690	1.00	34.17	A	N
ATOM	672	NH2	ARG	A	94	50.703	52.260	-11.326	1.00	34.35	A	N
ATOM	673	C	ARG	A	94	50.621	55.132	-4.084	1.00	32.71	A	C
ATOM	674	O	ARG	A	94	51.527	54.329	-3.878	1.00	34.42	A	O
ATOM	675	N	GLY	A	95	50.380	56.160	-3.276	1.00	31.48	A	N
ATOM	676	CA	GLY	A	95	51.168	56.339	-2.072	1.00	28.93	A	C
ATOM	677	C	GLY	A	95	50.508	55.559	-0.941	1.00	27.51	A	C
ATOM	678	O	GLY	A	95	49.416	55.012	-1.124	1.00	27.29	A	O
ATOM	679	N	THR	A	96	51.159	55.494	0.219	1.00	26.33	A	N
ATOM	680	CA	THR	A	96	50.604	54.791	1.378	1.00	26.30	A	C
ATOM	681	CB	THR	A	96	51.702	54.387	2.394	1.00	27.26	A	C
ATOM	682	OG1	THR	A	96	52.431	55.553	2.812	1.00	26.22	A	O
ATOM	683	CG2	THR	A	96	52.658	53.373	1.774	1.00	28.16	A	C
ATOM	684	C	THR	A	96	49.634	55.717	2.087	1.00	26.36	A	C
ATOM	685	O	THR	A	96	49.679	56.929	1.882	1.00	26.13	A	O
ATOM	686	N	VAL	A	97	48.759	55.161	2.924	1.00	27.73	A	N
ATOM	687	CA	VAL	A	97	47.800	56.002	3.635	1.00	28.30	A	C
ATOM	688	CB	VAL	A	97	46.925	55.191	4.628	1.00	28.87	A	C
ATOM	689	CG1	VAL	A	97	45.933	54.329	3.863	1.00	29.43	A	C
ATOM	690	CG2	VAL	A	97	47.798	54.317	5.500	1.00	31.32	A	C
ATOM	691	C	VAL	A	97	48.570	57.069	4.392	1.00	27.84	A	C
ATOM	692	O	VAL	A	97	48.183	58.236	4.424	1.00	28.56	A	O
ATOM	693	N	HIS	A	98	49.690	56.664	4.968	1.00	27.83	A	N
ATOM	694	CA	HIS	A	98	50.533	57.575	5.728	1.00	29.38	A	C
ATOM	695	CB	HIS	A	98	51.711	56.788	6.301	1.00	33.32	A	C
ATOM	696	CG	HIS	A	98	51.311	55.468	6.887	1.00	38.48	A	C
ATOM	697	CD2	HIS	A	98	51.273	54.227	6.340	1.00	38.90	A	C
ATOM	698	ND1	HIS	A	98	50.801	55.341	8.165	1.00	39.61	A	N
ATOM	699	CE1	HIS	A	98	50.467	54.080	8.379	1.00	40.81	A	C
ATOM	700	NE2	HIS	A	98	50.741	53.384	7.288	1.00	41.98	A	N
ATOM	701	C	HIS	A	98	51.023	58.722	4.843	1.00	27.81	A	C
ATOM	702	O	HIS	A	98	50.969	59.890	5.242	1.00	26.52	A	O
ATOM	703	N	GLU	A	99	51.489	58.380	3.642	1.00	26.58	A	N
ATOM	704	CA	GLU	A	99	51.984	59.372	2.693	1.00	27.17	A	C
ATOM	705	CB	GLU	A	99	52.692	58.678	1.524	1.00	28.47	A	C
ATOM	706	CG	GLU	A	99	53.910	57.900	1.971	1.00	30.97	A	C

FIG. 4A-12

ATOM	707	CD	GLU	A	99	54.498	57.031	0.885	1.00	32.49	A	C
ATOM	708	OE1	GLU	A	99	53.759	56.243	0.252	1.00	32.75	A	O
ATOM	709	OE2	GLU	A	99	55.718	57.130	0.675	1.00	35.40	A	O
ATOM	710	C	GLU	A	99	50.856	60.252	2.180	1.00	26.61	A	C
ATOM	711	O	GLU	A	99	51.019	61.469	2.063	1.00	26.82	A	O
ATOM	712	N	LYS	A	100	49.709	59.641	1.887	1.00	26.10	A	N
ATOM	713	CA	LYS	A	100	48.547	60.393	1.404	1.00	27.94	A	C
ATOM	714	CB	LYS	A	100	47.406	59.441	1.024	1.00	27.77	A	C
ATOM	715	CG	LYS	A	100	47.640	58.587	-0.223	1.00	29.04	A	C
ATOM	716	CD	LYS	A	100	46.470	57.614	-0.358	1.00	30.48	A	C
ATOM	717	CE	LYS	A	100	46.579	56.699	-1.554	1.00	32.01	A	C
ATOM	718	NZ	LYS	A	100	45.448	55.722	-1.538	1.00	30.56	A	N
ATOM	719	C	LYS	A	100	48.037	61.401	2.453	1.00	27.75	A	C
ATOM	720	O	LYS	A	100	47.776	62.569	2.132	1.00	27.49	A	O
ATOM	721	N	LEU	A	101	47.890	60.945	3.698	1.00	27.57	A	N
ATOM	722	CA	LEU	A	101	47.434	61.813	4.777	1.00	28.80	A	C
ATOM	723	CB	LEU	A	101	47.261	61.015	6.064	1.00	28.23	A	C
ATOM	724	CG	LEU	A	101	46.140	59.984	6.048	1.00	27.66	A	C
ATOM	725	CD1	LEU	A	101	46.205	59.118	7.301	1.00	25.77	A	C
ATOM	726	CD2	LEU	A	101	44.811	60.720	5.924	1.00	27.84	A	C
ATOM	727	C	LEU	A	101	48.410	62.958	5.034	1.00	29.52	A	C
ATOM	728	O	LEU	A	101	48.011	64.047	5.430	1.00	31.54	A	O
ATOM	729	N	ARG	A	102	49.694	62.715	4.821	1.00	30.37	A	N
ATOM	730	CA	ARG	A	102	50.672	63.767	5.045	1.00	31.12	A	C
ATOM	731	CB	ARG	A	102	52.084	63.187	5.016	1.00	32.26	A	C
ATOM	732	CG	ARG	A	102	52.796	63.311	6.339	1.00	34.48	A	C
ATOM	733	CD	ARG	A	102	53.668	62.091	6.655	1.00	36.31	A	C
ATOM	734	NE	ARG	A	102	52.867	60.912	6.985	1.00	36.96	A	N
ATOM	735	CZ	ARG	A	102	53.092	60.124	8.031	1.00	35.54	A	C
ATOM	736	NH1	ARG	A	102	54.090	60.390	8.852	1.00	36.26	A	N
ATOM	737	NH2	ARG	A	102	52.322	59.070	8.255	1.00	35.67	A	N
ATOM	738	C	ARG	A	102	50.509	64.825	3.972	1.00	30.36	A	C
ATOM	739	O	ARG	A	102	50.700	66.018	4.218	1.00	31.22	A	O
ATOM	740	N	TRP	A	103	50.142	64.377	2.778	1.00	29.12	A	N
ATOM	741	CA	TRP	A	103	49.944	65.279	1.651	1.00	27.44	A	C
ATOM	742	CB	TRP	A	103	49.687	64.471	0.374	1.00	26.67	A	C
ATOM	743	CG	TRP	A	103	49.872	65.265	-0.857	1.00	26.18	A	C
ATOM	744	CD2	TRP	A	103	48.897	66.104	-1.484	1.00	26.58	A	C
ATOM	745	CE2	TRP	A	103	49.530	66.727	-2.586	1.00	26.41	A	C
ATOM	746	CE3	TRP	A	103	47.551	66.397	-1.217	1.00	26.70	A	C
ATOM	747	CD1	TRP	A	103	51.023	65.404	-1.582	1.00	25.92	A	C
ATOM	748	NE1	TRP	A	103	50.826	66.281	-2.622	1.00	26.97	A	N
ATOM	749	CZ2	TRP	A	103	48.864	67.629	-3.424	1.00	26.27	A	C
ATOM	750	CZ3	TRP	A	103	46.885	67.298	-2.052	1.00	27.71	A	C
ATOM	751	CH2	TRP	A	103	47.548	67.903	-3.144	1.00	27.34	A	C
ATOM	752	C	TRP	A	103	48.740	66.170	1.961	1.00	27.40	A	C
ATOM	753	O	TRP	A	103	48.769	67.377	1.754	1.00	25.78	A	O
ATOM	754	N	THR	A	104	47.681	65.555	2.468	1.00	27.69	A	N
ATOM	755	CA	THR	A	104	46.473	66.287	2.810	1.00	28.08	A	C
ATOM	756	CB	THR	A	104	45.349	65.322	3.183	1.00	27.91	A	C
ATOM	757	OG1	THR	A	104	45.081	64.483	2.059	1.00	28.77	A	O
ATOM	758	CG2	THR	A	104	44.081	66.083	3.560	1.00	27.86	A	C
ATOM	759	C	THR	A	104	46.723	67.252	3.961	1.00	28.03	A	C
ATOM	760	O	THR	A	104	46.274	68.396	3.915	1.00	28.63	A	O
ATOM	761	N	PHE	A	105	47.433	66.798	4.994	1.00	27.80	A	N
ATOM	762	CA	PHE	A	105	47.744	67.681	6.115	1.00	28.18	A	C
ATOM	763	CB	PHE	A	105	48.679	67.004	7.129	1.00	27.89	A	C
ATOM	764	CG	PHE	A	105	49.014	67.880	8.322	1.00	27.71	A	C
ATOM	765	CD1	PHE	A	105	48.186	67.903	9.445	1.00	27.14	A	C
ATOM	766	CD2	PHE	A	105	50.121	68.731	8.293	1.00	26.67	A	C
ATOM	767	CE1	PHE	A	105	48.451	68.767	10.530	1.00	26.97	A	C
ATOM	768	CE2	PHE	A	105	50.395	69.597	9.366	1.00	27.96	A	C

FIG. 4A-13

ATOM	769	CZ	PHE	A	105	49.554	69.614	10.490	1.00	26.63	A	C
ATOM	770	C	PHE	A	105	48.432	68.933	5.568	1.00	28.24	A	C
ATOM	771	O	PHE	A	105	48.062	70.046	5.911	1.00	26.84	A	O
ATOM	772	N	ASN	A	106	49.432	68.737	4.709	1.00	30.20	A	N
ATOM	773	CA	ASN	A	106	50.170	69.849	4.114	1.00	32.19	A	C
ATOM	774	CB	ASN	A	106	51.306	69.311	3.227	1.00	33.63	A	C
ATOM	775	CG	ASN	A	106	52.514	68.851	4.034	1.00	36.08	A	C
ATOM	776	OD1	ASN	A	106	53.333	68.054	3.557	1.00	36.89	A	O
ATOM	777	ND2	ASN	A	106	52.641	69.365	5.258	1.00	35.48	A	N
ATOM	778	C	ASN	A	106	49.272	70.804	3.310	1.00	33.04	A	C
ATOM	779	O	ASN	A	106	49.525	72.010	3.252	1.00	33.57	A	O
ATOM	780	N	LEU	A	107	48.231	70.264	2.688	1.00	33.00	A	N
ATOM	781	CA	LEU	A	107	47.305	71.085	1.921	1.00	34.88	A	C
ATOM	782	CB	LEU	A	107	46.302	70.197	1.179	1.00	35.86	A	C
ATOM	783	CG	LEU	A	107	45.143	70.899	0.464	1.00	37.60	A	C
ATOM	784	CD1	LEU	A	107	45.458	71.057	-1.025	1.00	36.85	A	C
ATOM	785	CD2	LEU	A	107	43.873	70.071	0.649	1.00	37.46	A	C
ATOM	786	C	LEU	A	107	46.552	72.025	2.872	1.00	35.52	A	C
ATOM	787	O	LEU	A	107	46.439	73.224	2.606	1.00	35.29	A	O
ATOM	788	N	TYR	A	108	46.037	71.471	3.974	1.00	36.01	A	N
ATOM	789	CA	TYR	A	108	45.303	72.250	4.974	1.00	36.09	A	C
ATOM	790	CB	TYR	A	108	44.613	71.332	5.984	1.00	35.29	A	C
ATOM	791	CG	TYR	A	108	43.312	70.726	5.499	1.00	37.20	A	C
ATOM	792	CD1	TYR	A	108	43.299	69.788	4.466	1.00	36.25	A	C
ATOM	793	CE1	TYR	A	108	42.111	69.221	4.025	1.00	36.62	A	C
ATOM	794	CD2	TYR	A	108	42.087	71.084	6.084	1.00	36.40	A	C
ATOM	795	CE2	TYR	A	108	40.890	70.521	5.653	1.00	36.63	A	C
ATOM	796	CZ	TYR	A	108	40.911	69.587	4.620	1.00	37.38	A	C
ATOM	797	OH	TYR	A	108	39.739	69.003	4.180	1.00	38.31	A	O
ATOM	798	C	TYR	A	108	46.210	73.224	5.724	1.00	36.71	A	C
ATOM	799	O	TYR	A	108	45.771	74.297	6.146	1.00	36.06	A	O
ATOM	800	N	ASP	A	109	47.471	72.849	5.904	1.00	37.83	A	N
ATOM	801	CA	ASP	A	109	48.410	73.726	6.591	1.00	39.85	A	C
ATOM	802	CB	ASP	A	109	49.607	72.920	7.110	1.00	39.04	A	C
ATOM	803	CG	ASP	A	109	50.678	73.795	7.736	1.00	38.35	A	C
ATOM	804	OD1	ASP	A	109	50.364	74.909	8.203	1.00	35.94	A	O
ATOM	805	OD2	ASP	A	109	51.842	73.353	7.774	1.00	39.76	A	O
ATOM	806	C	ASP	A	109	48.857	74.790	5.594	1.00	40.74	A	C
ATOM	807	O	ASP	A	109	49.989	74.790	5.121	1.00	41.22	A	O
ATOM	808	N	ILE	A	110	47.942	75.701	5.292	1.00	42.10	A	N
ATOM	809	CA	ILE	A	110	48.175	76.771	4.335	1.00	43.20	A	C
ATOM	810	CB	ILE	A	110	46.965	77.725	4.297	1.00	43.00	A	C
ATOM	811	CG2	ILE	A	110	47.183	78.799	3.227	1.00	43.03	A	C
ATOM	812	CG1	ILE	A	110	45.682	76.925	4.028	1.00	41.16	A	C
ATOM	813	CD1	ILE	A	110	44.425	77.754	3.998	1.00	39.75	A	C
ATOM	814	C	ILE	A	110	49.449	77.596	4.552	1.00	44.81	A	C
ATOM	815	O	ILE	A	110	50.190	77.860	3.604	1.00	45.92	A	O
ATOM	816	N	ASN	A	111	49.708	78.008	5.786	1.00	45.82	A	N
ATOM	817	CA	ASN	A	111	50.891	78.812	6.056	1.00	47.02	A	C
ATOM	818	CB	ASN	A	111	50.646	79.740	7.251	1.00	47.53	A	C
ATOM	819	CG	ASN	A	111	50.549	78.990	8.575	1.00	48.29	A	C
ATOM	820	OD1	ASN	A	111	50.446	79.602	9.631	1.00	48.24	A	O
ATOM	821	ND2	ASN	A	111	50.581	77.666	8.518	1.00	48.53	A	N
ATOM	822	C	ASN	A	111	52.136	77.970	6.308	1.00	48.10	A	C
ATOM	823	O	ASN	A	111	53.182	78.502	6.660	1.00	49.72	A	O
ATOM	824	N	LYS	A	112	52.026	76.658	6.123	1.00	49.13	A	N
ATOM	825	CA	LYS	A	112	53.154	75.756	6.334	1.00	49.52	A	C
ATOM	826	CB	LYS	A	112	54.202	75.947	5.231	1.00	51.10	A	C
ATOM	827	CG	LYS	A	112	53.905	75.165	3.958	1.00	52.08	A	C
ATOM	828	CD	LYS	A	112	52.522	75.496	3.406	1.00	54.09	A	C
ATOM	829	CE	LYS	A	112	52.073	74.498	2.347	1.00	53.18	A	C
ATOM	830	NZ	LYS	A	112	50.664	74.761	1.949	1.00	53.57	A	N

FIG. 4A-14

ATOM	831	C	LYS	A	112	53.785	75.960	7.705	1.00	49.43	A	C
ATOM	832	O	LYS	A	112	55.006	75.972	7.851	1.00	49.54	A	O
ATOM	833	N	ASP	A	113	52.912	76.121	8.696	1.00	48.94	A	N
ATOM	834	CA	ASP	A	113	53.255	76.313	10.101	1.00	47.30	A	C
ATOM	835	CB	ASP	A	113	51.986	76.655	10.885	1.00	48.03	A	C
ATOM	836	CG	ASP	A	113	52.161	77.840	11.791	1.00	48.37	A	C
ATOM	837	OD1	ASP	A	113	53.288	78.050	12.269	1.00	50.41	A	O
ATOM	838	OD2	ASP	A	113	51.171	78.555	12.036	1.00	47.14	A	O
ATOM	839	C	ASP	A	113	53.777	74.997	10.646	1.00	46.48	A	C
ATOM	840	O	ASP	A	113	54.706	74.951	11.449	1.00	46.33	A	O
ATOM	841	N	GLY	A	114	53.138	73.924	10.197	1.00	45.61	A	N
ATOM	842	CA	GLY	A	114	53.474	72.591	10.646	1.00	43.32	A	C
ATOM	843	C	GLY	A	114	52.270	72.190	11.464	1.00	42.33	A	C
ATOM	844	O	GLY	A	114	52.193	71.085	12.005	1.00	42.23	A	O
ATOM	845	N	TYR	A	115	51.320	73.118	11.542	1.00	40.41	A	N
ATOM	846	CA	TYR	A	115	50.094	72.924	12.299	1.00	40.02	A	C
ATOM	847	CB	TYR	A	115	50.201	73.631	13.645	1.00	42.80	A	C
ATOM	848	CG	TYR	A	115	51.568	73.559	14.261	1.00	44.93	A	C
ATOM	849	CD1	TYR	A	115	52.092	72.344	14.699	1.00	45.68	A	C
ATOM	850	CE1	TYR	A	115	53.357	72.268	15.259	1.00	46.70	A	C
ATOM	851	CD2	TYR	A	115	52.347	74.704	14.399	1.00	45.76	A	C
ATOM	852	CE2	TYR	A	115	53.619	74.638	14.961	1.00	47.54	A	C
ATOM	853	CZ	TYR	A	115	54.115	73.415	15.389	1.00	46.96	A	C
ATOM	854	OH	TYR	A	115	55.364	73.342	15.953	1.00	48.34	A	O
ATOM	855	C	TYR	A	115	48.896	73.506	11.556	1.00	38.45	A	C
ATOM	856	O	TYR	A	115	49.054	74.308	10.639	1.00	37.35	A	O
ATOM	857	N	ILE	A	116	47.700	73.104	11.976	1.00	36.67	A	N
ATOM	858	CA	ILE	A	116	46.464	73.601	11.384	1.00	35.92	A	C
ATOM	859	CB	ILE	A	116	45.569	72.461	10.840	1.00	34.57	A	C
ATOM	860	CG2	ILE	A	116	44.325	73.051	10.193	1.00	34.19	A	C
ATOM	861	CG1	ILE	A	116	46.323	71.613	9.820	1.00	33.31	A	C
ATOM	862	CD1	ILE	A	116	45.566	70.371	9.389	1.00	31.71	A	C
ATOM	863	C	ILE	A	116	45.652	74.330	12.447	1.00	36.18	A	C
ATOM	864	O	ILE	A	116	45.357	73.765	13.498	1.00	36.64	A	O
ATOM	865	N	ASN	A	117	45.300	75.585	12.189	1.00	36.49	A	N
ATOM	866	CA	ASN	A	117	44.480	76.328	13.145	1.00	37.49	A	C
ATOM	867	CB	ASN	A	117	44.991	77.767	13.347	1.00	38.04	A	C
ATOM	868	CG	ASN	A	117	45.143	78.532	12.043	1.00	38.09	A	C
ATOM	869	OD1	ASN	A	117	44.229	78.586	11.221	1.00	37.38	A	O
ATOM	870	ND2	ASN	A	117	46.304	79.138	11.857	1.00	39.11	A	N
ATOM	871	C	ASN	A	117	43.055	76.354	12.620	1.00	37.18	A	C
ATOM	872	O	ASN	A	117	42.799	75.942	11.487	1.00	36.41	A	O
ATOM	873	N	LYS	A	118	42.127	76.829	13.444	1.00	37.73	A	N
ATOM	874	CA	LYS	A	118	40.731	76.890	13.035	1.00	38.96	A	C
ATOM	875	CB	LYS	A	118	39.872	77.433	14.179	1.00	39.43	A	C
ATOM	876	CG	LYS	A	118	39.629	76.421	15.292	1.00	41.09	A	C
ATOM	877	CD	LYS	A	118	38.275	75.758	15.136	1.00	41.52	A	C
ATOM	878	CE	LYS	A	118	37.204	76.476	15.946	1.00	42.02	A	C
ATOM	879	NZ	LYS	A	118	37.006	75.836	17.286	1.00	42.31	A	N
ATOM	880	C	LYS	A	118	40.554	77.743	11.781	1.00	38.88	A	C
ATOM	881	O	LYS	A	118	39.795	77.382	10.884	1.00	38.09	A	O
ATOM	882	N	GLU	A	119	41.272	78.863	11.716	1.00	39.22	A	N
ATOM	883	CA	GLU	A	119	41.180	79.761	10.571	1.00	39.84	A	C
ATOM	884	CB	GLU	A	119	42.105	80.967	10.760	1.00	41.61	A	C
ATOM	885	CG	GLU	A	119	41.900	82.046	9.708	1.00	46.20	A	C
ATOM	886	CD	GLU	A	119	43.055	83.033	9.607	1.00	49.21	A	C
ATOM	887	OE1	GLU	A	119	42.918	84.026	8.856	1.00	51.23	A	O
ATOM	888	OE2	GLU	A	119	44.099	82.820	10.267	1.00	51.75	A	O
ATOM	889	C	GLU	A	119	41.525	79.047	9.256	1.00	38.60	A	C
ATOM	890	O	GLU	A	119	40.843	79.224	8.249	1.00	38.19	A	O
ATOM	891	N	GLU	A	120	42.584	78.243	9.271	1.00	36.94	A	N
ATOM	892	CA	GLU	A	120	43.001	77.509	8.079	1.00	36.18	A	C

FIG. 4A-15

ATOM	893	CB	GLU	A	120	44.384	76.882	8.302	1.00	34.43	A	C
ATOM	894	CG	GLU	A	120	45.488	77.903	8.499	1.00	33.20	A	C
ATOM	895	CD	GLU	A	120	46.839	77.275	8.772	1.00	33.59	A	C
ATOM	896	OE1	GLU	A	120	46.920	76.392	9.647	1.00	32.80	A	O
ATOM	897	OE2	GLU	A	120	47.830	77.673	8.123	1.00	34.41	A	O
ATOM	898	C	GLU	A	120	41.981	76.423	7.748	1.00	36.33	A	C
ATOM	899	O	GLU	A	120	41.672	76.181	6.589	1.00	34.95	A	O
ATOM	900	N	MET	A	121	41.470	75.770	8.787	1.00	37.50	A	N
ATOM	901	CA	MET	A	121	40.482	74.709	8.641	1.00	39.36	A	C
ATOM	902	CB	MET	A	121	40.104	74.185	10.031	1.00	41.72	A	C
ATOM	903	CG	MET	A	121	39.308	72.893	10.054	1.00	44.07	A	C
ATOM	904	SD	MET	A	121	40.186	71.567	9.234	1.00	48.39	A	S
ATOM	905	CE	MET	A	121	38.824	70.515	8.738	1.00	46.88	A	C
ATOM	906	C	MET	A	121	39.253	75.293	7.939	1.00	39.43	A	C
ATOM	907	O	MET	A	121	38.729	74.712	6.986	1.00	38.90	A	O
ATOM	908	N	MET	A	122	38.815	76.454	8.425	1.00	39.60	A	N
ATOM	909	CA	MET	A	122	37.663	77.176	7.883	1.00	39.54	A	C
ATOM	910	CB	MET	A	122	37.482	78.511	8.609	1.00	41.12	A	C
ATOM	911	CG	MET	A	122	36.749	78.424	9.935	1.00	44.24	A	C
ATOM	912	SD	MET	A	122	35.019	77.909	9.745	1.00	47.82	A	S
ATOM	913	CE	MET	A	122	34.546	78.883	8.310	1.00	46.42	A	C
ATOM	914	C	MET	A	122	37.828	77.448	6.396	1.00	38.41	A	C
ATOM	915	O	MET	A	122	36.965	77.106	5.596	1.00	37.06	A	O
ATOM	916	N	ASP	A	123	38.941	78.078	6.036	1.00	38.07	A	N
ATOM	917	CA	ASP	A	123	39.209	78.389	4.643	1.00	38.17	A	C
ATOM	918	CB	ASP	A	123	40.628	78.933	4.493	1.00	39.92	A	C
ATOM	919	CG	ASP	A	123	40.766	80.327	5.058	1.00	42.09	A	C
ATOM	920	OD1	ASP	A	123	39.836	81.131	4.845	1.00	43.91	A	O
ATOM	921	OD2	ASP	A	123	41.790	80.628	5.705	1.00	44.40	A	O
ATOM	922	C	ASP	A	123	39.009	77.181	3.741	1.00	37.46	A	C
ATOM	923	O	ASP	A	123	38.207	77.222	2.806	1.00	37.76	A	O
ATOM	924	N	ILE	A	124	39.725	76.102	4.035	1.00	35.71	A	N
ATOM	925	CA	ILE	A	124	39.630	74.882	3.246	1.00	34.74	A	C
ATOM	926	CB	ILE	A	124	40.590	73.781	3.785	1.00	34.89	A	C
ATOM	927	CG2	ILE	A	124	40.510	72.547	2.900	1.00	33.49	A	C
ATOM	928	CG1	ILE	A	124	42.025	74.311	3.842	1.00	34.31	A	C
ATOM	929	CD1	ILE	A	124	42.543	74.816	2.517	1.00	35.60	A	C
ATOM	930	C	ILE	A	124	38.215	74.312	3.234	1.00	33.82	A	C
ATOM	931	O	ILE	A	124	37.691	73.955	2.179	1.00	31.89	A	O
ATOM	932	N	VAL	A	125	37.604	74.218	4.413	1.00	34.16	A	N
ATOM	933	CA	VAL	A	125	36.257	73.664	4.525	1.00	34.03	A	C
ATOM	934	CB	VAL	A	125	35.858	73.441	6.000	1.00	33.91	A	C
ATOM	935	CG1	VAL	A	125	34.426	72.902	6.076	1.00	32.15	A	C
ATOM	936	CG2	VAL	A	125	36.829	72.463	6.649	1.00	32.57	A	C
ATOM	937	C	VAL	A	125	35.207	74.531	3.845	1.00	34.47	A	C
ATOM	938	O	VAL	A	125	34.254	74.016	3.278	1.00	36.25	A	O
ATOM	939	N	LYS	A	126	35.362	75.847	3.922	1.00	34.33	A	N
ATOM	940	CA	LYS	A	126	34.422	76.733	3.261	1.00	34.23	A	C
ATOM	941	CB	LYS	A	126	34.735	78.199	3.587	1.00	35.17	A	C
ATOM	942	CG	LYS	A	126	33.929	79.227	2.790	1.00	37.72	A	C
ATOM	943	CD	LYS	A	126	32.432	79.140	3.076	1.00	39.97	A	C
ATOM	944	CE	LYS	A	126	31.655	80.316	2.471	1.00	40.84	A	C
ATOM	945	NZ	LYS	A	126	31.506	80.232	0.988	1.00	42.32	A	N
ATOM	946	C	LYS	A	126	34.575	76.465	1.766	1.00	33.29	A	C
ATOM	947	O	LYS	A	126	33.604	76.503	1.035	1.00	33.30	A	O
ATOM	948	N	ALA	A	127	35.793	76.173	1.322	1.00	31.99	A	N
ATOM	949	CA	ALA	A	127	36.023	75.879	-0.085	1.00	32.67	A	C
ATOM	950	CB	ALA	A	127	37.516	75.802	-0.375	1.00	30.72	A	C
ATOM	951	C	ALA	A	127	35.337	74.569	-0.497	1.00	33.33	A	C
ATOM	952	O	ALA	A	127	34.781	74.468	-1.590	1.00	33.38	A	O
ATOM	953	N	ILE	A	128	35.381	73.570	0.380	1.00	34.46	A	N
ATOM	954	CA	ILE	A	128	34.759	72.281	0.111	1.00	35.05	A	C

FIG. 4A-16

ATOM	955	CB	ILE	A	128	35.170	71.249	1.173	1.00	35.21	A	C
ATOM	956	CG2	ILE	A	128	34.309	69.998	1.052	1.00	34.90	A	C
ATOM	957	CG1	ILE	A	128	36.653	70.915	0.999	1.00	34.77	A	C
ATOM	958	CD1	ILE	A	128	37.205	69.949	2.030	1.00	34.71	A	C
ATOM	959	C	ILE	A	128	33.232	72.389	0.048	1.00	35.64	A	C
ATOM	960	O	ILE	A	128	32.594	71.795	-0.823	1.00	35.27	A	O
ATOM	961	N	TYR	A	129	32.641	73.139	0.968	1.00	36.35	A	N
ATOM	962	CA	TYR	A	129	31.196	73.329	0.942	1.00	38.15	A	C
ATOM	963	CB	TYR	A	129	30.749	74.174	2.135	1.00	39.30	A	C
ATOM	964	CG	TYR	A	129	30.413	73.352	3.350	1.00	41.50	A	C
ATOM	965	CD1	TYR	A	129	31.397	72.615	4.019	1.00	42.72	A	C
ATOM	966	CE1	TYR	A	129	31.078	71.823	5.130	1.00	42.36	A	C
ATOM	967	CD2	TYR	A	129	29.104	73.280	3.821	1.00	42.17	A	C
ATOM	968	CE2	TYR	A	129	28.777	72.494	4.927	1.00	42.50	A	C
ATOM	969	CZ	TYR	A	129	29.766	71.770	5.575	1.00	42.28	A	C
ATOM	970	OH	TYR	A	129	29.440	71.005	6.671	1.00	43.54	A	O
ATOM	971	C	TYR	A	129	30.754	74.003	-0.372	1.00	38.06	A	C
ATOM	972	O	TYR	A	129	29.787	73.587	-1.006	1.00	37.24	A	O
ATOM	973	N	ASP	A	130	31.466	75.045	-0.779	1.00	37.90	A	N
ATOM	974	CA	ASP	A	130	31.136	75.736	-2.013	1.00	38.38	A	C
ATOM	975	CB	ASP	A	130	31.989	77.009	-2.167	1.00	37.03	A	C
ATOM	976	CG	ASP	A	130	31.898	78.237	-1.272	1.00	36.44	A	C
ATOM	977	OD2	ASP	A	130	32.768	79.093	-1.110	1.00	20.00	A	O
ATOM	978	OD1	ASP	A	130	30.941	78.091	-0.516	1.00	20.00	A	O
ATOM	979	C	ASP	A	130	31.267	74.788	-3.199	1.00	39.91	A	C
ATOM	980	O	ASP	A	130	30.494	74.848	-4.156	1.00	40.47	A	O
ATOM	981	N	MET	A	131	32.247	73.899	-3.125	1.00	42.38	A	N
ATOM	982	CA	MET	A	131	32.496	72.937	-4.191	1.00	45.23	A	C
ATOM	983	CB	MET	A	131	33.823	72.231	-3.935	1.00	45.52	A	C
ATOM	984	CG	MET	A	131	34.153	71.148	-4.922	1.00	46.59	A	C
ATOM	985	SD	MET	A	131	35.867	70.633	-4.732	1.00	49.34	A	S
ATOM	986	CE	MET	A	131	35.801	69.823	-3.141	1.00	47.47	A	C
ATOM	987	C	MET	A	131	31.375	71.910	-4.319	1.00	46.74	A	C
ATOM	988	O	MET	A	131	30.965	71.566	-5.422	1.00	46.26	A	O
ATOM	989	N	MET	A	132	30.879	71.432	-3.184	1.00	48.46	A	N
ATOM	990	CA	MET	A	132	29.807	70.446	-3.167	1.00	51.95	A	C
ATOM	991	CB	MET	A	132	29.848	69.648	-1.866	1.00	52.66	A	C
ATOM	992	CG	MET	A	132	31.123	68.871	-1.645	1.00	54.74	A	C
ATOM	993	SD	MET	A	132	30.987	67.859	-0.156	1.00	57.01	A	S
ATOM	994	CE	MET	A	132	30.105	66.417	-0.838	1.00	56.94	A	C
ATOM	995	C	MET	A	132	28.427	71.080	-3.303	1.00	53.61	A	C
ATOM	996	O	MET	A	132	27.424	70.380	-3.439	1.00	52.55	A	O
ATOM	997	N	GLY	A	133	28.379	72.404	-3.252	1.00	56.05	A	N
ATOM	998	CA	GLY	A	133	27.106	73.086	-3.362	1.00	60.00	A	C
ATOM	999	C	GLY	A	133	26.141	72.644	-2.278	1.00	63.21	A	C
ATOM	1000	O	GLY	A	133	26.515	72.539	-1.109	1.00	63.27	A	O
ATOM	1001	N	LYS	A	134	24.896	72.379	-2.662	1.00	66.49	A	N
ATOM	1002	CA	LYS	A	134	23.886	71.961	-1.700	1.00	70.14	A	C
ATOM	1003	CB	LYS	A	134	22.524	72.554	-2.066	1.00	71.36	A	C
ATOM	1004	CG	LYS	A	134	21.865	71.927	-3.288	1.00	71.59	A	C
ATOM	1005	CD	LYS	A	134	20.649	72.732	-3.763	1.00	72.83	A	C
ATOM	1006	CE	LYS	A	134	19.565	72.864	-2.687	1.00	74.25	A	C
ATOM	1007	NZ	LYS	A	134	19.961	73.728	-1.532	1.00	75.03	A	N
ATOM	1008	C	LYS	A	134	23.786	70.449	-1.644	1.00	72.97	A	C
ATOM	1009	O	LYS	A	134	22.955	69.899	-0.926	1.00	73.33	A	O
ATOM	1010	N	TYR	A	135	24.635	69.776	-2.408	1.00	75.64	A	N
ATOM	1011	CA	TYR	A	135	24.624	68.324	-2.422	1.00	78.10	A	C
ATOM	1012	CB	TYR	A	135	24.631	67.821	-3.860	1.00	80.11	A	C
ATOM	1013	CG	TYR	A	135	23.340	68.156	-4.561	1.00	82.16	A	C
ATOM	1014	CD1	TYR	A	135	22.138	67.574	-4.155	1.00	82.57	A	C
ATOM	1015	CE1	TYR	A	135	20.929	67.917	-4.758	1.00	83.87	A	C
ATOM	1016	CD2	TYR	A	135	23.305	69.091	-5.593	1.00	82.83	A	C

FIG. 4A-17

ATOM	1017	CE2	TYR	A	135	22.101	69.442	-6.203	1.00	84.02	A	C
ATOM	1018	CZ	TYR	A	135	20.918	68.851	-5.781	1.00	84.25	A	C
ATOM	1019	OH	TYR	A	135	19.728	69.195	-6.379	1.00	85.51	A	O
ATOM	1020	C	TYR	A	135	25.780	67.744	-1.631	1.00	79.48	A	C
ATOM	1021	O	TYR	A	135	26.312	66.683	-1.960	1.00	79.68	A	O
ATOM	1022	N	THR	A	136	26.164	68.462	-0.580	1.00	80.52	A	N
ATOM	1023	CA	THR	A	136	27.231	68.021	0.300	1.00	81.76	A	C
ATOM	1024	CB	THR	A	136	27.776	69.200	1.158	1.00	81.99	A	C
ATOM	1025	OG1	THR	A	136	28.720	68.705	2.119	1.00	82.51	A	O
ATOM	1026	CG2	THR	A	136	26.641	69.926	1.870	1.00	81.95	A	C
ATOM	1027	C	THR	A	136	26.617	66.935	1.187	1.00	82.10	A	C
ATOM	1028	O	THR	A	136	26.343	67.145	2.368	1.00	82.13	A	O
ATOM	1029	N	TYR	A	137	26.382	65.779	0.570	1.00	83.02	A	N
ATOM	1030	CA	TYR	A	137	25.797	64.604	1.213	1.00	83.28	A	C
ATOM	1031	CB	TYR	A	137	25.989	63.398	0.290	1.00	84.87	A	C
ATOM	1032	CG	TYR	A	137	25.144	63.424	-0.964	1.00	86.64	A	C
ATOM	1033	CD1	TYR	A	137	23.751	63.381	-0.892	1.00	87.57	A	C
ATOM	1034	CE1	TYR	A	137	22.968	63.371	-2.049	1.00	88.39	A	C
ATOM	1035	CD2	TYR	A	137	25.738	63.460	-2.224	1.00	87.17	A	C
ATOM	1036	CE2	TYR	A	137	24.967	63.451	-3.386	1.00	88.32	A	C
ATOM	1037	CZ	TYR	A	137	23.584	63.406	-3.292	1.00	88.59	A	C
ATOM	1038	OH	TYR	A	137	22.824	63.395	-4.442	1.00	89.13	A	O
ATOM	1039	C	TYR	A	137	26.408	64.318	2.593	1.00	82.51	A	C
ATOM	1040	O	TYR	A	137	27.131	65.152	3.140	1.00	83.10	A	O
ATOM	1041	N	PRO	A	138	26.124	63.135	3.179	1.00	80.88	A	N
ATOM	1042	CD	PRO	A	138	25.363	61.968	2.701	1.00	80.41	A	C
ATOM	1043	CA	PRO	A	138	26.706	62.854	4.494	1.00	79.17	A	C
ATOM	1044	CB	PRO	A	138	26.231	61.430	4.782	1.00	79.81	A	C
ATOM	1045	CG	PRO	A	138	26.055	60.843	3.412	1.00	79.89	A	C
ATOM	1046	C	PRO	A	138	28.228	62.977	4.511	1.00	77.85	A	C
ATOM	1047	O	PRO	A	138	28.848	62.927	5.573	1.00	77.81	A	O
ATOM	1048	N	VAL	A	139	28.821	63.131	3.327	1.00	76.00	A	N
ATOM	1049	CA	VAL	A	139	30.265	63.283	3.191	1.00	73.69	A	C
ATOM	1050	CB	VAL	A	139	30.633	63.812	1.795	1.00	73.84	A	C
ATOM	1051	CG1	VAL	A	139	32.136	63.757	1.598	1.00	73.41	A	C
ATOM	1052	CG2	VAL	A	139	29.899	63.012	0.725	1.00	73.98	A	C
ATOM	1053	C	VAL	A	139	30.704	64.307	4.228	1.00	72.09	A	C
ATOM	1054	O	VAL	A	139	31.697	64.119	4.932	1.00	71.58	A	O
ATOM	1055	N	LEU	A	140	29.938	65.391	4.306	1.00	70.52	A	N
ATOM	1056	CA	LEU	A	140	30.183	66.468	5.253	1.00	69.06	A	C
ATOM	1057	CB	LEU	A	140	30.832	67.673	4.564	1.00	69.73	A	C
ATOM	1058	CG	LEU	A	140	32.324	67.633	4.231	1.00	69.77	A	C
ATOM	1059	CD1	LEU	A	140	32.769	69.021	3.805	1.00	70.00	A	C
ATOM	1060	CD2	LEU	A	140	33.121	67.193	5.449	1.00	70.04	A	C
ATOM	1061	C	LEU	A	140	28.877	66.919	5.893	1.00	67.76	A	C
ATOM	1062	O	LEU	A	140	28.292	67.923	5.480	1.00	67.47	A	O
ATOM	1063	N	LYS	A	141	28.415	66.173	6.892	1.00	66.11	A	N
ATOM	1064	CA	LYS	A	141	27.189	66.531	7.595	1.00	64.75	A	C
ATOM	1065	CB	LYS	A	141	26.877	65.504	8.690	1.00	65.15	A	C
ATOM	1066	CG	LYS	A	141	28.049	65.198	9.619	1.00	66.31	A	C
ATOM	1067	CD	LYS	A	141	27.590	64.575	10.936	1.00	66.27	A	C
ATOM	1068	CE	LYS	A	141	26.822	65.586	11.780	1.00	66.96	A	C
ATOM	1069	NZ	LYS	A	141	26.395	65.033	13.095	1.00	67.09	A	N
ATOM	1070	C	LYS	A	141	27.379	67.923	8.211	1.00	63.11	A	C
ATOM	1071	O	LYS	A	141	28.442	68.531	8.064	1.00	63.90	A	O
ATOM	1072	N	GLU	A	142	26.361	68.419	8.905	1.00	60.13	A	N
ATOM	1073	CA	GLU	A	142	26.408	69.747	9.523	1.00	57.81	A	C
ATOM	1074	CB	GLU	A	142	27.769	70.007	10.175	1.00	58.12	A	C
ATOM	1075	CG	GLU	A	142	28.045	69.086	11.342	1.00	58.21	A	C
ATOM	1076	CD	GLU	A	142	29.366	68.369	11.215	1.00	58.83	A	C
ATOM	1077	OE1	GLU	A	142	29.864	68.255	10.076	1.00	57.73	A	O
ATOM	1078	OE2	GLU	A	142	29.893	67.907	12.253	1.00	59.38	A	O

FIG. 4A-18

ATOM	1079	C	GLU	A	142	26.106	70.808	8.473	1.00	55.75	A	C
ATOM	1080	O	GLU	A	142	26.746	70.866	7.423	1.00	54.18	A	O
ATOM	1081	N	ASP	A	143	25.114	71.638	8.775	1.00	53.91	A	N
ATOM	1082	CA	ASP	A	143	24.653	72.677	7.865	1.00	52.94	A	C
ATOM	1083	CB	ASP	A	143	23.528	73.485	8.524	1.00	52.78	A	C
ATOM	1084	CG	ASP	A	143	22.333	72.628	8.887	1.00	53.04	A	C
ATOM	1085	OD1	ASP	A	143	21.937	71.778	8.059	1.00	53.99	A	O
ATOM	1086	OD2	ASP	A	143	21.784	72.806	9.993	1.00	52.28	A	O
ATOM	1087	C	ASP	A	143	25.724	73.630	7.363	1.00	51.61	A	C
ATOM	1088	O	ASP	A	143	25.838	73.880	6.163	1.00	50.60	A	O
ATOM	1089	N	THR	A	144	26.518	74.153	8.282	1.00	50.01	A	N
ATOM	1090	CA	THR	A	144	27.535	75.104	7.902	1.00	49.25	A	C
ATOM	1091	CB	THR	A	144	27.365	76.414	8.700	1.00	48.81	A	C
ATOM	1092	OG1	THR	A	144	27.611	76.162	10.086	1.00	47.79	A	O
ATOM	1093	CG2	THR	A	144	25.949	76.952	8.544	1.00	47.87	A	C
ATOM	1094	C	THR	A	144	28.963	74.614	8.082	1.00	49.20	A	C
ATOM	1095	O	THR	A	144	29.229	73.675	8.836	1.00	49.09	A	O
ATOM	1096	N	PRO	A	145	29.903	75.246	7.364	1.00	48.73	A	N
ATOM	1097	CD	PRO	A	145	29.642	76.241	6.306	1.00	48.24	A	C
ATOM	1098	CA	PRO	A	145	31.326	74.912	7.425	1.00	47.89	A	C
ATOM	1099	CB	PRO	A	145	31.942	75.861	6.398	1.00	48.43	A	C
ATOM	1100	CG	PRO	A	145	30.831	76.068	5.412	1.00	48.71	A	C
ATOM	1101	C	PRO	A	145	31.839	75.192	8.842	1.00	47.06	A	C
ATOM	1102	O	PRO	A	145	32.661	74.449	9.377	1.00	45.52	A	O
ATOM	1103	N	ARG	A	146	31.335	76.276	9.435	1.00	47.01	A	N
ATOM	1104	CA	ARG	A	146	31.711	76.690	10.784	1.00	47.03	A	C
ATOM	1105	CB	ARG	A	146	31.019	78.010	11.138	1.00	49.27	A	C
ATOM	1106	CG	ARG	A	146	31.333	78.544	12.542	1.00	52.69	A	C
ATOM	1107	CD	ARG	A	146	32.833	78.533	12.827	1.00	55.48	A	C
ATOM	1108	NE	ARG	A	146	33.352	79.819	13.292	1.00	58.15	A	N
ATOM	1109	CZ	ARG	A	146	33.396	80.926	12.553	1.00	59.62	A	C
ATOM	1110	NH1	ARG	A	146	32.946	80.918	11.304	1.00	59.96	A	N
ATOM	1111	NH2	ARG	A	146	33.904	82.041	13.059	1.00	60.26	A	N
ATOM	1112	C	ARG	A	146	31.359	75.621	11.816	1.00	46.21	A	C
ATOM	1113	O	ARG	A	146	32.094	75.402	12.777	1.00	44.88	A	O
ATOM	1114	N	GLN	A	147	30.233	74.952	11.603	1.00	45.24	A	N
ATOM	1115	CA	GLN	A	147	29.785	73.901	12.500	1.00	44.85	A	C
ATOM	1116	CB	GLN	A	147	28.309	73.626	12.253	1.00	45.45	A	C
ATOM	1117	CG	GLN	A	147	27.429	74.739	12.735	1.00	45.63	A	C
ATOM	1118	CD	GLN	A	147	26.006	74.593	12.283	1.00	45.83	A	C
ATOM	1119	OE1	GLN	A	147	25.112	75.238	12.825	1.00	48.58	A	O
ATOM	1120	NE2	GLN	A	147	25.780	73.758	11.279	1.00	45.70	A	N
ATOM	1121	C	GLN	A	147	30.586	72.618	12.317	1.00	44.97	A	C
ATOM	1122	O	GLN	A	147	30.802	71.869	13.266	1.00	45.60	A	O
ATOM	1123	N	HIS	A	148	31.012	72.362	11.087	1.00	44.39	A	N
ATOM	1124	CA	HIS	A	148	31.791	71.173	10.785	1.00	43.33	A	C
ATOM	1125	CB	HIS	A	148	31.804	70.929	9.275	1.00	43.65	A	C
ATOM	1126	CG	HIS	A	148	32.691	69.801	8.858	1.00	43.80	A	C
ATOM	1127	CD2	HIS	A	148	32.430	68.486	8.669	1.00	43.53	A	C
ATOM	1128	ND1	HIS	A	148	34.043	69.957	8.650	1.00	44.18	A	N
ATOM	1129	CE1	HIS	A	148	34.578	68.787	8.353	1.00	43.39	A	C
ATOM	1130	NE2	HIS	A	148	33.620	67.878	8.359	1.00	43.23	A	N
ATOM	1131	C	HIS	A	148	33.213	71.343	11.309	1.00	42.68	A	C
ATOM	1132	O	HIS	A	148	33.794	70.424	11.864	1.00	43.42	A	O
ATOM	1133	N	VAL	A	149	33.762	72.535	11.131	1.00	42.36	A	N
ATOM	1134	CA	VAL	A	149	35.106	72.850	11.589	1.00	41.50	A	C
ATOM	1135	CB	VAL	A	149	35.508	74.267	11.127	1.00	40.10	A	C
ATOM	1136	CG1	VAL	A	149	36.759	74.741	11.851	1.00	39.83	A	C
ATOM	1137	CG2	VAL	A	149	35.757	74.246	9.634	1.00	40.00	A	C
ATOM	1138	C	VAL	A	149	35.235	72.737	13.110	1.00	41.59	A	C
ATOM	1139	O	VAL	A	149	36.246	72.252	13.619	1.00	40.50	A	O
ATOM	1140	N	ASP	A	150	34.211	73.183	13.831	1.00	42.21	A	N

FIG. 4A-19

ATOM	1141	CA	ASP	A	150	34.235	73.099	15.281	1.00	43.19	A	C
ATOM	1142	CB	ASP	A	150	33.087	73.902	15.887	1.00	43.80	A	C
ATOM	1143	CG	ASP	A	150	33.340	75.404	15.837	1.00	45.02	A	C
ATOM	1144	OD1	ASP	A	150	34.463	75.842	16.182	1.00	43.90	A	O
ATOM	1145	OD2	ASP	A	150	32.413	76.148	15.461	1.00	46.14	A	O
ATOM	1146	C	ASP	A	150	34.167	71.649	15.734	1.00	42.77	A	C
ATOM	1147	O	ASP	A	150	34.854	71.258	16.672	1.00	42.20	A	O
ATOM	1148	N	VAL	A	151	33.344	70.855	15.053	1.00	43.57	A	N
ATOM	1149	CA	VAL	A	151	33.202	69.433	15.361	1.00	43.19	A	C
ATOM	1150	CB	VAL	A	151	31.994	68.811	14.617	1.00	43.65	A	C
ATOM	1151	CG1	VAL	A	151	31.945	67.304	14.861	1.00	42.02	A	C
ATOM	1152	CG2	VAL	A	151	30.703	69.469	15.084	1.00	43.03	A	C
ATOM	1153	C	VAL	A	151	34.469	68.684	14.950	1.00	43.31	A	C
ATOM	1154	O	VAL	A	151	34.840	67.682	15.559	1.00	43.08	A	O
ATOM	1155	N	PHE	A	152	35.130	69.174	13.909	1.00	43.19	A	N
ATOM	1156	CA	PHE	A	152	36.363	68.556	13.437	1.00	44.74	A	C
ATOM	1157	CB	PHE	A	152	36.761	69.147	12.082	1.00	46.84	A	C
ATOM	1158	CG	PHE	A	152	38.105	68.684	11.577	1.00	49.66	A	C
ATOM	1159	CD1	PHE	A	152	39.288	69.248	12.068	1.00	50.96	A	C
ATOM	1160	CD2	PHE	A	152	38.191	67.691	10.599	1.00	50.62	A	C
ATOM	1161	CE1	PHE	A	152	40.538	68.832	11.593	1.00	51.74	A	C
ATOM	1162	CE2	PHE	A	152	39.434	67.267	10.115	1.00	51.81	A	C
ATOM	1163	CZ	PHE	A	152	40.611	67.840	10.614	1.00	51.94	A	C
ATOM	1164	C	PHE	A	152	37.486	68.766	14.448	1.00	44.12	A	C
ATOM	1165	O	PHE	A	152	38.164	67.815	14.833	1.00	42.85	A	O
ATOM	1166	N	PHE	A	153	37.672	70.015	14.867	1.00	44.11	A	N
ATOM	1167	CA	PHE	A	153	38.705	70.372	15.829	1.00	45.96	A	C
ATOM	1168	CB	PHE	A	153	38.756	71.889	15.997	1.00	46.09	A	C
ATOM	1169	CG	PHE	A	153	39.975	72.518	15.398	1.00	46.77	A	C
ATOM	1170	CD1	PHE	A	153	40.206	72.451	14.028	1.00	46.70	A	C
ATOM	1171	CD2	PHE	A	153	40.907	73.159	16.206	1.00	47.06	A	C
ATOM	1172	CE1	PHE	A	153	41.349	73.010	13.469	1.00	47.18	A	C
ATOM	1173	CE2	PHE	A	153	42.056	73.723	15.659	1.00	47.73	A	C
ATOM	1174	CZ	PHE	A	153	42.278	73.648	14.284	1.00	47.61	A	C
ATOM	1175	C	PHE	A	153	38.514	69.721	17.196	1.00	47.19	A	C
ATOM	1176	O	PHE	A	153	39.471	69.267	17.822	1.00	46.37	A	O
ATOM	1177	N	GLN	A	154	37.275	69.691	17.662	1.00	48.95	A	N
ATOM	1178	CA	GLN	A	154	36.965	69.094	18.952	1.00	50.56	A	C
ATOM	1179	CB	GLN	A	154	35.446	69.059	19.160	1.00	53.43	A	C
ATOM	1180	CG	GLN	A	154	35.001	68.708	20.572	1.00	57.87	A	C
ATOM	1181	CD	GLN	A	154	34.774	69.944	21.432	1.00	61.36	A	C
ATOM	1182	OE1	GLN	A	154	33.876	70.751	21.155	1.00	63.41	A	O
ATOM	1183	NE2	GLN	A	154	35.588	70.102	22.477	1.00	62.26	A	N
ATOM	1184	C	GLN	A	154	37.517	67.673	18.979	1.00	49.87	A	C
ATOM	1185	O	GLN	A	154	38.197	67.273	19.921	1.00	50.62	A	O
ATOM	1186	N	LYS	A	155	37.225	66.924	17.924	1.00	48.85	A	N
ATOM	1187	CA	LYS	A	155	37.656	65.540	17.794	1.00	48.81	A	C
ATOM	1188	CB	LYS	A	155	36.914	64.869	16.639	1.00	49.50	A	C
ATOM	1189	CG	LYS	A	155	35.411	64.809	16.782	1.00	52.43	A	C
ATOM	1190	CD	LYS	A	155	34.801	64.065	15.595	1.00	53.85	A	C
ATOM	1191	CE	LYS	A	155	33.292	63.934	15.726	1.00	53.94	A	C
ATOM	1192	NZ	LYS	A	155	32.707	63.252	14.540	1.00	54.00	A	N
ATOM	1193	C	LYS	A	155	39.149	65.345	17.556	1.00	47.98	A	C
ATOM	1194	O	LYS	A	155	39.749	64.392	18.051	1.00	47.90	A	O
ATOM	1195	N	MET	A	156	39.753	66.248	16.798	1.00	46.73	A	N
ATOM	1196	CA	MET	A	156	41.154	66.106	16.464	1.00	45.05	A	C
ATOM	1197	CB	MET	A	156	41.351	66.538	15.009	1.00	46.78	A	C
ATOM	1198	CG	MET	A	156	42.391	65.722	14.280	1.00	48.74	A	C
ATOM	1199	SD	MET	A	156	42.308	65.901	12.505	1.00	49.26	A	S
ATOM	1200	CE	MET	A	156	41.128	64.625	12.121	1.00	49.14	A	C
ATOM	1201	C	MET	A	156	42.165	66.797	17.378	1.00	43.50	A	C
ATOM	1202	O	MET	A	156	43.254	66.273	17.592	1.00	43.69	A	O

FIG. 4A-20

ATOM	1203	N	ASP	A	157	41.821	67.959	17.922	1.00	41.94	A	N
ATOM	1204	CA	ASP	A	157	42.737	68.677	18.808	1.00	40.01	A	C
ATOM	1205	CB	ASP	A	157	42.364	70.160	18.847	1.00	38.20	A	C
ATOM	1206	CG	ASP	A	157	43.263	70.960	19.766	1.00	38.30	A	C
ATOM	1207	OD1	ASP	A	157	44.371	70.475	20.089	1.00	36.78	A	O
ATOM	1208	OD2	ASP	A	157	42.864	72.078	20.160	1.00	37.41	A	O
ATOM	1209	C	ASP	A	157	42.723	68.071	20.219	1.00	39.65	A	C
ATOM	1210	O	ASP	A	157	42.168	68.640	21.157	1.00	38.73	A	O
ATOM	1211	N	LYS	A	158	43.362	66.914	20.354	1.00	40.03	A	N
ATOM	1212	CA	LYS	A	158	43.401	66.177	21.613	1.00	40.61	A	C
ATOM	1213	CB	LYS	A	158	44.191	64.882	21.420	1.00	42.38	A	C
ATOM	1214	CG	LYS	A	158	43.442	63.874	20.555	1.00	46.63	A	C
ATOM	1215	CD	LYS	A	158	42.034	63.631	21.119	1.00	48.63	A	C
ATOM	1216	CE	LYS	A	158	41.212	62.701	20.244	1.00	50.11	A	C
ATOM	1217	NZ	LYS	A	158	39.856	62.474	20.828	1.00	50.52	A	N
ATOM	1218	C	LYS	A	158	43.859	66.865	22.893	1.00	40.07	A	C
ATOM	1219	O	LYS	A	158	43.289	66.598	23.955	1.00	40.83	A	O
ATOM	1220	N	ASN	A	159	44.875	67.724	22.823	1.00	38.04	A	N
ATOM	1221	CA	ASN	A	159	45.340	68.404	24.028	1.00	37.44	A	C
ATOM	1222	CB	ASN	A	159	46.864	68.569	24.007	1.00	36.22	A	C
ATOM	1223	CG	ASN	A	159	47.321	69.573	22.992	1.00	34.14	A	C
ATOM	1224	OD1	ASN	A	159	46.644	69.806	21.995	1.00	35.12	A	O
ATOM	1225	ND2	ASN	A	159	48.479	70.173	23.229	1.00	32.99	A	N
ATOM	1226	C	ASN	A	159	44.653	69.759	24.182	1.00	37.44	A	C
ATOM	1227	O	ASN	A	159	44.962	70.533	25.093	1.00	37.12	A	O
ATOM	1228	N	LYS	A	160	43.716	70.025	23.274	1.00	36.78	A	N
ATOM	1229	CA	LYS	A	160	42.916	71.244	23.270	1.00	36.59	A	C
ATOM	1230	CB	LYS	A	160	41.890	71.200	24.406	1.00	37.78	A	C
ATOM	1231	CG	LYS	A	160	40.960	70.003	24.366	1.00	38.61	A	C
ATOM	1232	CD	LYS	A	160	40.031	69.993	25.571	1.00	39.53	A	C
ATOM	1233	CE	LYS	A	160	39.213	68.705	25.622	1.00	40.72	A	C
ATOM	1234	NZ	LYS	A	160	38.230	68.708	26.746	1.00	42.05	A	N
ATOM	1235	C	LYS	A	160	43.670	72.555	23.360	1.00	36.33	A	C
ATOM	1236	O	LYS	A	160	43.294	73.427	24.147	1.00	36.16	A	O
ATOM	1237	N	ASP	A	161	44.722	72.709	22.565	1.00	35.17	A	N
ATOM	1238	CA	ASP	A	161	45.470	73.955	22.572	1.00	35.20	A	C
ATOM	1239	CB	ASP	A	161	46.981	73.688	22.598	1.00	36.07	A	C
ATOM	1240	CG	ASP	A	161	47.463	72.936	21.380	1.00	36.91	A	C
ATOM	1241	OD1	ASP	A	161	48.688	72.735	21.251	1.00	37.63	A	O
ATOM	1242	OD2	ASP	A	161	46.619	72.540	20.553	1.00	36.46	A	O
ATOM	1243	C	ASP	A	161	45.091	74.767	21.333	1.00	34.98	A	C
ATOM	1244	O	ASP	A	161	45.810	75.684	20.927	1.00	35.51	A	O
ATOM	1245	N	GLY	A	162	43.950	74.418	20.743	1.00	34.35	A	N
ATOM	1246	CA	GLY	A	162	43.459	75.108	19.560	1.00	33.35	A	C
ATOM	1247	C	GLY	A	162	44.262	74.866	18.296	1.00	33.71	A	C
ATOM	1248	O	GLY	A	162	44.027	75.505	17.270	1.00	33.79	A	O
ATOM	1249	N	ILE	A	163	45.202	73.931	18.363	1.00	32.45	A	N
ATOM	1250	CA	ILE	A	163	46.060	73.623	17.230	1.00	30.95	A	C
ATOM	1251	CB	ILE	A	163	47.522	74.053	17.537	1.00	32.91	A	C
ATOM	1252	CG2	ILE	A	163	48.507	73.281	16.680	1.00	34.23	A	C
ATOM	1253	CG1	ILE	A	163	47.681	75.548	17.307	1.00	34.64	A	C
ATOM	1254	CD1	ILE	A	163	47.399	75.965	15.888	1.00	37.80	A	C
ATOM	1255	C	ILE	A	163	46.038	72.131	16.929	1.00	29.89	A	C
ATOM	1256	O	ILE	A	163	45.961	71.317	17.851	1.00	29.72	A	O
ATOM	1257	N	VAL	A	164	46.102	71.775	15.643	1.00	27.08	A	N
ATOM	1258	CA	VAL	A	164	46.127	70.371	15.239	1.00	23.63	A	C
ATOM	1259	CB	VAL	A	164	45.012	70.019	14.222	1.00	23.91	A	C
ATOM	1260	CG1	VAL	A	164	45.162	68.558	13.769	1.00	21.79	A	C
ATOM	1261	CG2	VAL	A	164	43.628	70.255	14.840	1.00	22.48	A	C
ATOM	1262	C	VAL	A	164	47.469	70.126	14.587	1.00	24.01	A	C
ATOM	1263	O	VAL	A	164	47.796	70.723	13.566	1.00	24.35	A	O
ATOM	1264	N	THR	A	165	48.259	69.255	15.194	1.00	25.14	A	N

FIG. 4A-21

ATOM	1265	CA	THR	A	165	49.580	68.930	14.672	1.00	25.83	A	C
ATOM	1266	CB	THR	A	165	50.545	68.555	15.808	1.00	26.84	A	C
ATOM	1267	OG1	THR	A	165	49.984	67.484	16.579	1.00	27.40	A	O
ATOM	1268	CG2	THR	A	165	50.777	69.758	16.719	1.00	27.91	A	C
ATOM	1269	C	THR	A	165	49.471	67.757	13.720	1.00	26.36	A	C
ATOM	1270	O	THR	A	165	48.421	67.132	13.607	1.00	26.92	A	O
ATOM	1271	N	LEU	A	166	50.557	67.451	13.034	1.00	26.44	A	N
ATOM	1272	CA	LEU	A	166	50.516	66.339	12.109	1.00	27.49	A	C
ATOM	1273	CB	LEU	A	166	51.872	66.169	11.418	1.00	26.47	A	C
ATOM	1274	CG	LEU	A	166	51.966	64.916	10.540	1.00	27.12	A	C
ATOM	1275	CD1	LEU	A	166	50.878	64.952	9.462	1.00	27.17	A	C
ATOM	1276	CD2	LEU	A	166	53.340	64.831	9.908	1.00	26.43	A	C
ATOM	1277	C	LEU	A	166	50.134	65.057	12.848	1.00	28.32	A	C
ATOM	1278	O	LEU	A	166	49.288	64.288	12.380	1.00	29.24	A	O
ATOM	1279	N	ASP	A	167	50.749	64.843	14.009	1.00	29.23	A	N
ATOM	1280	CA	ASP	A	167	50.496	63.646	14.803	1.00	29.63	A	C
ATOM	1281	CB	ASP	A	167	51.476	63.572	15.981	1.00	29.60	A	C
ATOM	1282	CG	ASP	A	167	51.463	62.221	16.652	1.00	31.26	A	C
ATOM	1283	OD1	ASP	A	167	51.700	61.208	15.960	1.00	31.68	A	O
ATOM	1284	OD2	ASP	A	167	51.211	62.160	17.874	1.00	35.28	A	O
ATOM	1285	C	ASP	A	167	49.054	63.526	15.298	1.00	29.74	A	C
ATOM	1286	O	ASP	A	167	48.488	62.429	15.286	1.00	30.13	A	O
ATOM	1287	N	GLU	A	168	48.455	64.634	15.732	1.00	29.47	A	N
ATOM	1288	CA	GLU	A	168	47.063	64.585	16.181	1.00	29.58	A	C
ATOM	1289	CB	GLU	A	168	46.613	65.944	16.742	1.00	29.37	A	C
ATOM	1290	CG	GLU	A	168	47.284	66.342	18.041	1.00	29.13	A	C
ATOM	1291	CD	GLU	A	168	46.924	67.753	18.464	1.00	30.23	A	C
ATOM	1292	OE1	GLU	A	168	47.056	68.665	17.622	1.00	29.91	A	O
ATOM	1293	OE2	GLU	A	168	46.520	67.955	19.632	1.00	28.29	A	O
ATOM	1294	C	GLU	A	168	46.195	64.221	14.972	1.00	29.62	A	C
ATOM	1295	O	GLU	A	168	45.224	63.471	15.083	1.00	30.31	A	O
ATOM	1296	N	PHE	A	169	46.573	64.766	13.821	1.00	28.73	A	N
ATOM	1297	CA	PHE	A	169	45.883	64.536	12.562	1.00	29.03	A	C
ATOM	1298	CB	PHE	A	169	46.544	65.391	11.475	1.00	28.61	A	C
ATOM	1299	CG	PHE	A	169	45.826	65.380	10.156	1.00	29.48	A	C
ATOM	1300	CD1	PHE	A	169	44.722	66.196	9.942	1.00	29.24	A	C
ATOM	1301	CD2	PHE	A	169	46.288	64.589	9.103	1.00	29.78	A	C
ATOM	1302	CE1	PHE	A	169	44.092	66.234	8.700	1.00	29.19	A	C
ATOM	1303	CE2	PHE	A	169	45.663	64.623	7.858	1.00	29.71	A	C
ATOM	1304	CZ	PHE	A	169	44.566	65.448	7.656	1.00	28.72	A	C
ATOM	1305	C	PHE	A	169	45.926	63.056	12.159	1.00	29.06	A	C
ATOM	1306	O	PHE	A	169	44.912	62.470	11.788	1.00	28.34	A	O
ATOM	1307	N	LEU	A	170	47.106	62.456	12.229	1.00	30.37	A	N
ATOM	1308	CA	LEU	A	170	47.249	61.058	11.850	1.00	33.08	A	C
ATOM	1309	CB	LEU	A	170	48.732	60.670	11.779	1.00	32.64	A	C
ATOM	1310	CG	LEU	A	170	49.545	61.554	10.824	1.00	33.54	A	C
ATOM	1311	CD1	LEU	A	170	51.007	61.178	10.851	1.00	32.82	A	C
ATOM	1312	CD2	LEU	A	170	48.994	61.403	9.422	1.00	34.35	A	C
ATOM	1313	C	LEU	A	170	46.505	60.147	12.809	1.00	34.05	A	C
ATOM	1314	O	LEU	A	170	45.784	59.260	12.372	1.00	35.06	A	O
ATOM	1315	N	GLU	A	171	46.665	60.367	14.111	1.00	36.11	A	N
ATOM	1316	CA	GLU	A	171	45.982	59.536	15.103	1.00	38.27	A	C
ATOM	1317	CB	GLU	A	171	46.335	59.974	16.535	1.00	40.05	A	C
ATOM	1318	CG	GLU	A	171	47.730	59.545	17.023	1.00	44.06	A	C
ATOM	1319	CD	GLU	A	171	47.850	58.038	17.275	1.00	46.86	A	C
ATOM	1320	OE1	GLU	A	171	47.054	57.492	18.071	1.00	48.91	A	O
ATOM	1321	OE2	GLU	A	171	48.744	57.395	16.685	1.00	48.43	A	O
ATOM	1322	C	GLU	A	171	44.473	59.589	14.910	1.00	38.75	A	C
ATOM	1323	O	GLU	A	171	43.816	58.548	14.864	1.00	39.84	A	O
ATOM	1324	N	SER	A	172	43.925	60.795	14.789	1.00	37.46	A	N
ATOM	1325	CA	SER	A	172	42.487	60.951	14.596	1.00	38.79	A	C
ATOM	1326	CB	SER	A	172	42.118	62.445	14.526	1.00	37.16	A	C

FIG. 4A-22

ATOM	1327	OG	SER	A	172	43.090	63.484	14.406	1.00	20.00	A	O
ATOM	1328	C	SER	A	172	42.005	60.167	13.370	1.00	39.50	A	C
ATOM	1329	O	SER	A	172	41.008	59.442	13.434	1.00	38.24	A	O
ATOM	1330	N	CYS	A	173	42.723	60.313	12.259	1.00	40.64	A	N
ATOM	1331	CA	CYS	A	173	42.369	59.622	11.026	1.00	42.91	A	C
ATOM	1332	CB	CYS	A	173	43.250	60.093	9.869	1.00	42.58	A	C
ATOM	1333	SG	CYS	A	173	42.927	61.761	9.287	1.00	42.65	A	S
ATOM	1334	C	CYS	A	173	42.513	58.117	11.172	1.00	44.54	A	C
ATOM	1335	O	CYS	A	173	41.707	57.351	10.647	1.00	44.61	A	O
ATOM	1336	N	GLN	A	174	43.547	57.698	11.890	1.00	46.28	A	N
ATOM	1337	CA	GLN	A	174	43.804	56.282	12.088	1.00	48.25	A	C
ATOM	1338	CB	GLN	A	174	45.208	56.073	12.685	1.00	48.32	A	C
ATOM	1339	CG	GLN	A	174	45.113	55.086	13.848	1.00	20.00	A	C
ATOM	1340	CD	GLN	A	174	46.606	54.851	13.853	1.00	20.00	A	C
ATOM	1341	OE1	GLN	A	174	47.601	55.296	13.306	1.00	20.00	A	O
ATOM	1342	NE2	GLN	A	174	46.652	54.076	14.955	1.00	20.00	A	N
ATOM	1343	C	GLN	A	174	42.719	55.640	12.931	1.00	49.52	A	C
ATOM	1344	O	GLN	A	174	42.358	54.485	12.717	1.00	50.06	A	O
ATOM	1345	N	GLU	A	175	42.193	56.401	13.883	1.00	51.40	A	N
ATOM	1346	CA	GLU	A	175	41.169	55.902	14.790	1.00	52.27	A	C
ATOM	1347	CB	GLU	A	175	41.441	56.457	16.200	1.00	52.00	A	C
ATOM	1348	CG	GLU	A	175	40.643	57.656	16.714	1.00	20.00	A	C
ATOM	1349	CD	GLU	A	175	41.544	57.841	17.913	1.00	20.00	A	C
ATOM	1350	OE2	GLU	A	175	41.487	58.618	18.856	1.00	20.00	A	O
ATOM	1351	OE1	GLU	A	175	42.338	56.903	17.864	1.00	20.00	A	O
ATOM	1352	C	GLU	A	175	39.741	56.202	14.348	1.00	53.25	A	C
ATOM	1353	O	GLU	A	175	38.795	55.898	15.074	1.00	53.15	A	O
ATOM	1354	N	ASP	A	176	39.580	56.789	13.163	1.00	54.64	A	N
ATOM	1355	CA	ASP	A	176	38.250	57.134	12.661	1.00	55.50	A	C
ATOM	1356	CB	ASP	A	176	37.842	58.516	13.179	1.00	55.76	A	C
ATOM	1357	CG	ASP	A	176	36.371	58.830	12.931	1.00	57.00	A	C
ATOM	1358	OD1	ASP	A	176	35.834	58.437	11.871	1.00	56.51	A	O
ATOM	1359	OD2	ASP	A	176	35.751	59.485	13.797	1.00	57.06	A	O
ATOM	1360	C	ASP	A	176	38.192	57.143	11.137	1.00	56.15	A	C
ATOM	1361	O	ASP	A	176	38.694	58.066	10.499	1.00	56.54	A	O
ATOM	1362	N	ASP	A	177	37.563	56.128	10.557	1.00	56.88	A	N
ATOM	1363	CA	ASP	A	177	37.439	56.031	9.105	1.00	57.63	A	C
ATOM	1364	CB	ASP	A	177	36.847	54.665	8.712	1.00	57.64	A	C
ATOM	1365	CG	ASP	A	177	37.324	54.782	7.272	1.00	20.00	A	C
ATOM	1366	OD2	ASP	A	177	36.258	54.892	6.664	1.00	20.00	A	O
ATOM	1367	OD1	ASP	A	177	38.400	54.571	6.720	1.00	20.00	A	O
ATOM	1368	C	ASP	A	177	36.635	57.197	8.534	1.00	58.49	A	C
ATOM	1369	O	ASP	A	177	36.804	57.572	7.371	1.00	58.63	A	O
ATOM	1370	N	ASN	A	178	35.762	57.767	9.360	1.00	59.22	A	N
ATOM	1371	CA	ASN	A	178	34.914	58.881	8.945	1.00	60.04	A	C
ATOM	1372	CB	ASN	A	178	33.803	59.105	9.978	1.00	61.69	A	C
ATOM	1373	CG	ASN	A	178	32.946	57.867	10.193	1.00	63.45	A	C
ATOM	1374	OD1	ASN	A	178	32.309	57.375	9.263	1.00	64.62	A	O
ATOM	1375	ND2	ASN	A	178	32.929	57.357	11.427	1.00	64.05	A	N
ATOM	1376	C	ASN	A	178	35.688	60.182	8.735	1.00	59.46	A	C
ATOM	1377	O	ASN	A	178	35.498	60.870	7.732	1.00	58.93	A	O
ATOM	1378	N	ILE	A	179	36.551	60.515	9.689	1.00	58.89	A	N
ATOM	1379	CA	ILE	A	179	37.349	61.732	9.606	1.00	58.64	A	C
ATOM	1380	CB	ILE	A	179	38.152	61.950	10.902	1.00	58.55	A	C
ATOM	1381	CG2	ILE	A	179	39.236	63.044	10.896	1.00	20.00	A	C
ATOM	1382	CG1	ILE	A	179	36.945	62.491	11.671	1.00	20.00	A	C
ATOM	1383	CD1	ILE	A	179	37.688	63.035	12.892	1.00	20.00	A	C
ATOM	1384	C	ILE	A	179	38.228	61.696	8.365	1.00	58.24	A	C
ATOM	1385	O	ILE	A	179	38.335	62.679	7.632	1.00	58.22	A	O
ATOM	1386	N	MET	A	180	38.846	60.547	8.128	1.00	57.78	A	N
ATOM	1387	CA	MET	A	180	39.726	60.378	6.984	1.00	57.77	A	C
ATOM	1388	CB	MET	A	180	40.242	58.938	6.949	1.00	58.13	A	C

FIG. 4A-23

ATOM	1389	CG	MET A 180	41.535	58.756	6.172	1.00	58.02	A	C
ATOM	1390	SD	MET A 180	42.219	57.098	6.388	1.00	58.38	A	S
ATOM	1391	CE	MET A 180	43.180	57.286	7.896	1.00	58.59	A	C
ATOM	1392	C	MET A 180	39.038	60.736	5.664	1.00	57.58	A	C
ATOM	1393	O	MET A 180	39.539	61.566	4.910	1.00	57.12	A	O
ATOM	1394	N	ARG A 181	37.887	60.119	5.401	1.00	57.90	A	N
ATOM	1395	CA	ARG A 181	37.125	60.362	4.176	1.00	57.76	A	C
ATOM	1396	CB	ARG A 181	35.821	59.564	4.277	1.00	57.75	A	C
ATOM	1397	CG	ARG A 181	36.060	58.047	4.234	1.00	20.00	A	C
ATOM	1398	CD	ARG A 181	34.761	57.252	4.412	1.00	20.00	A	C
ATOM	1399	NE	ARG A 181	35.028	55.812	4.365	1.00	20.00	A	N
ATOM	1400	CZ	ARG A 181	33.976	54.984	4.508	1.00	20.00	A	C
ATOM	1401	NH1	ARG A 181	34.151	53.675	4.475	1.00	20.00	A	N
ATOM	1402	NH2	ARG A 181	32.754	55.494	4.688	1.00	20.00	A	N
ATOM	1403	C	ARG A 181	36.798	61.841	3.939	1.00	58.17	A	C
ATOM	1404	O	ARG A 181	37.050	62.380	2.861	1.00	58.63	A	O
ATOM	1405	N	SER A 182	36.230	62.493	4.948	1.00	58.30	A	N
ATOM	1406	CA	SER A 182	35.876	63.906	4.848	1.00	58.08	A	C
ATOM	1407	CB	SER A 182	35.313	64.394	6.181	1.00	59.02	A	C
ATOM	1408	OG	SER A 182	36.275	64.256	7.213	1.00	60.12	A	O
ATOM	1409	C	SER A 182	37.078	64.767	4.460	1.00	57.32	A	C
ATOM	1410	O	SER A 182	36.921	65.917	4.047	1.00	56.37	A	O
ATOM	1411	N	LEU A 183	38.274	64.203	4.602	1.00	56.97	A	N
ATOM	1412	CA	LEU A 183	39.507	64.900	4.270	1.00	56.87	A	C
ATOM	1413	CB	LEU A 183	40.567	64.613	5.333	1.00	56.46	A	C
ATOM	1414	CG	LEU A 183	40.381	65.258	6.711	1.00	56.97	A	C
ATOM	1415	CD1	LEU A 183	41.256	64.552	7.739	1.00	56.83	A	C
ATOM	1416	CD2	LEU A 183	40.716	66.744	6.636	1.00	56.63	A	C
ATOM	1417	C	LEU A 183	40.035	64.479	2.903	1.00	57.62	A	C
ATOM	1418	O	LEU A 183	40.277	65.319	2.036	1.00	58.08	A	O
ATOM	1419	N	GLN A 184	40.193	63.171	2.720	1.00	58.43	A	N
ATOM	1420	CA	GLN A 184	40.722	62.585	1.488	1.00	59.44	A	C
ATOM	1421	CB	GLN A 184	41.159	61.142	1.754	1.00	60.57	A	C
ATOM	1422	CG	GLN A 184	42.390	60.992	2.626	1.00	62.17	A	C
ATOM	1423	CD	GLN A 184	43.607	61.676	2.036	1.00	63.75	A	C
ATOM	1424	OE1	GLN A 184	43.822	61.653	0.820	1.00	65.40	A	O
ATOM	1425	NE2	GLN A 184	44.421	62.275	2.895	1.00	64.41	A	N
ATOM	1426	C	GLN A 184	39.823	62.585	0.251	1.00	59.40	A	C
ATOM	1427	O	GLN A 184	40.294	62.834	-0.859	1.00	59.49	A	O
ATOM	1428	N	LEU A 185	38.546	62.274	0.446	1.00	59.28	A	N
ATOM	1429	CA	LEU A 185	37.563	62.204	-0.635	1.00	58.52	A	C
ATOM	1430	CB	LEU A 185	36.188	62.622	-0.097	1.00	59.83	A	C
ATOM	1431	CG	LEU A 185	34.908	62.476	-0.939	1.00	60.99	A	C
ATOM	1432	CD1	LEU A 185	35.010	63.279	-2.227	1.00	61.25	A	C
ATOM	1433	CD2	LEU A 185	34.663	61.006	-1.242	1.00	61.89	A	C
ATOM	1434	C	LEU A 185	37.912	63.052	-1.858	1.00	58.00	A	C
ATOM	1435	O	LEU A 185	37.985	62.550	-2.980	1.00	57.77	A	O
ATOM	1436	N	PHE A 186	38.140	64.339	-1.622	1.00	57.93	A	N
ATOM	1437	CA	PHE A 186	38.441	65.308	-2.678	1.00	56.27	A	C
ATOM	1438	CB	PHE A 186	38.290	66.703	-2.077	1.00	56.40	A	C
ATOM	1439	CG	PHE A 186	37.091	66.827	-1.179	1.00	56.93	A	C
ATOM	1440	CD1	PHE A 186	35.809	66.902	-1.713	1.00	57.22	A	C
ATOM	1441	CD2	PHE A 186	37.238	66.797	0.206	1.00	56.83	A	C
ATOM	1442	CE1	PHE A 186	34.685	66.942	-0.877	1.00	57.80	A	C
ATOM	1443	CE2	PHE A 186	36.128	66.836	1.044	1.00	56.85	A	C
ATOM	1444	CZ	PHE A 186	34.849	66.908	0.503	1.00	57.09	A	C
ATOM	1445	C	PHE A 186	39.792	65.144	-3.391	1.00	55.61	A	C
ATOM	1446	O	PHE A 186	39.964	65.600	-4.524	1.00	54.18	A	O
ATOM	1447	N	GLN A 187	40.747	64.501	-2.729	1.00	55.87	A	N
ATOM	1448	CA	GLN A 187	42.049	64.256	-3.344	1.00	56.42	A	C
ATOM	1449	CB	GLN A 187	43.121	63.990	-2.279	1.00	56.81	A	C
ATOM	1450	CG	GLN A 187	43.800	65.231	-1.721	1.00	56.31	A	C

FIG. 4A-24

ATOM	1451	CD	GLN	A	187	42.824	66.220	-1.115	1.00	56.03	A	C
ATOM	1452	OE1	GLN	A	187	42.161	66.980	-1.829	1.00	55.49	A	O
ATOM	1453	NE2	GLN	A	187	42.725	66.211	0.212	1.00	54.80	A	N
ATOM	1454	C	GLN	A	187	41.938	63.033	-4.251	1.00	55.55	A	C
ATOM	1455	O	GLN	A	187	42.637	62.931	-5.264	1.00	55.99	A	O
ATOM	1456	N	ASN	A	188	41.045	62.116	-3.875	1.00	55.30	A	N
ATOM	1457	CA	ASN	A	188	40.830	60.882	-4.624	1.00	54.90	A	C
ATOM	1458	CB	ASN	A	188	40.016	59.892	-3.792	1.00	53.89	A	C
ATOM	1459	CG	ASN	A	188	40.822	59.281	-2.674	1.00	53.57	A	C
ATOM	1460	OD1	ASN	A	188	41.930	58.798	-2.896	1.00	54.14	A	O
ATOM	1461	ND2	ASN	A	188	40.273	59.290	-1.464	1.00	53.04	A	N
ATOM	1462	C	ASN	A	188	40.159	61.072	-5.972	1.00	53.50	A	C
ATOM	1463	O	ASN	A	188	40.575	60.470	-6.960	1.00	53.30	A	O
ATOM	1464	N	VAL	A	189	39.120	61.900	-6.007	1.00	54.55	A	N
ATOM	1465	CA	VAL	A	189	38.392	62.167	-7.242	1.00	55.50	A	C
ATOM	1466	CB	VAL	A	189	37.484	63.421	-7.089	1.00	56.77	A	C
ATOM	1467	CG1	VAL	A	189	36.810	63.754	-8.411	1.00	57.31	A	C
ATOM	1468	CG2	VAL	A	189	36.432	63.171	-6.027	1.00	57.55	A	C
ATOM	1469	C	VAL	A	189	39.338	62.381	-8.431	1.00	56.01	A	C
ATOM	1470	O	VAL	A	189	38.964	62.142	-9.583	1.00	55.53	A	O
ATOM	1471	N	MET	A	190	40.562	62.817	-8.141	1.00	57.18	A	N
ATOM	1472	CA	MET	A	190	41.561	63.082	-9.170	1.00	58.28	A	C
ATOM	1473	CB	MET	A	190	42.592	64.074	-8.651	1.00	59.91	A	C
ATOM	1474	CG	MET	A	190	42.029	65.350	-8.096	1.00	61.94	A	C
ATOM	1475	SD	MET	A	190	43.389	66.355	-7.480	1.00	64.25	A	S
ATOM	1476	CE	MET	A	190	43.919	67.146	-8.984	1.00	63.18	A	C
ATOM	1477	C	MET	A	190	42.310	61.838	-9.638	1.00	58.87	A	C
ATOM	1478	O	MET	A	190	42.697	61.735	-10.807	1.00	58.96	A	O
ATOM	1479	N	VAL	A	191	42.540	60.908	-8.719	1.00	58.80	A	N
ATOM	1480	CA	VAL	A	191	43.264	59.695	-9.055	1.00	58.74	A	C
ATOM	1481	CB	VAL	A	191	44.201	59.270	-7.903	1.00	58.56	A	C
ATOM	1482	CG1	VAL	A	191	45.351	60.257	-7.802	1.00	57.06	A	C
ATOM	1483	CG2	VAL	A	191	43.431	59.213	-6.581	1.00	57.52	A	C
ATOM	1484	C	VAL	A	191	42.334	58.551	-9.430	1.00	59.77	A	C
ATOM	1485	O	VAL	A	191	42.727	57.386	-9.440	1.00	59.62	A	O
ATOM	1486	N	GLU	A	192	41.091	58.893	-9.739	1.00	60.96	A	N
ATOM	1487	CA	GLU	A	192	40.131	57.889	-10.166	1.00	62.50	A	C
ATOM	1488	CB	GLU	A	192	38.752	58.520	-10.371	1.00	63.32	A	C
ATOM	1489	CG	GLU	A	192	37.992	58.759	-9.084	1.00	64.85	A	C
ATOM	1490	CD	GLU	A	192	37.821	57.481	-8.273	1.00	66.05	A	C
ATOM	1491	OE1	GLU	A	192	38.852	56.905	-7.846	1.00	66.39	A	O
ATOM	1492	OE2	GLU	A	192	36.659	57.053	-8.067	1.00	66.07	A	O
ATOM	1493	C	GLU	A	192	40.628	57.289	-11.482	1.00	62.93	A	C
ATOM	1494	OT1	GLU	A	192	40.770	56.048	-11.551	1.00	63.33	A	O
ATOM	1495	OT2	GLU	A	192	40.875	58.074	-12.430	1.00	63.53	A	O
ATOM	1496	O	HOH	W	1	35.469	75.381	-3.776	1.00	23.76	W	O
ATOM	1497	O	HOH	W	2	52.858	69.036	13.284	1.00	34.20	W	O
ATOM	1498	O	HOH	W	3	34.892	78.823	-4.797	1.00	38.94	W	O
ATOM	1499	O	HOH	W	4	37.006	67.545	7.552	1.00	29.05	W	O
ATOM	1500	O	HOH	W	5	56.152	61.673	-4.774	1.00	34.60	W	O
ATOM	1501	O	HOH	W	6	49.023	80.324	-12.196	1.00	28.25	W	O
ATOM	1502	O	HOH	W	7	54.007	68.342	-6.591	1.00	29.14	W	O
ATOM	1503	O	HOH	W	8	50.661	68.851	-0.418	1.00	35.10	W	O
ATOM	1504	O	HOH	W	9	53.364	62.780	1.420	1.00	32.97	W	O
ATOM	1505	O	HOH	W	10	55.113	65.116	13.378	1.00	39.07	W	O
ATOM	1506	O	HOH	W	11	46.387	56.775	10.105	1.00	44.06	W	O
ATOM	1507	O	HOH	W	12	43.495	59.821	-13.560	1.00	53.98	W	O
ATOM	1508	O	HOH	W	13	48.694	77.673	11.464	1.00	30.69	W	O
ATOM	1509	O	HOH	W	14	50.926	77.563	15.031	1.00	42.21	W	O
ATOM	1510	O	HOH	W	15	47.658	52.121	-10.356	1.00	42.27	W	O
ATOM	1511	O	HOH	W	16	24.619	71.536	11.589	1.00	40.08	W	O
ATOM	1512	O	HOH	W	17	53.442	66.563	14.796	1.00	38.72	W	O

FIG. 4A-25

ATOM	1513	O	HOH	W	18	42.849	80.355	13.801	1.00	42.00	W	O
ATOM	1514	O	HOH	W	19	44.188	62.492	-18.301	1.00	45.68	W	O
ATOM	1515	O	HOH	W	20	51.484	57.183	9.936	1.00	43.80	W	O
ATOM	1516	O	HOH	W	21	45.507	52.819	-12.257	1.00	55.22	W	O
ATOM	1517	O	HOH	W	22	25.351	67.731	-13.222	1.00	55.58	W	O
ATOM	1518	O	HOH	W	23	43.627	81.485	2.314	1.00	36.08	W	O
ATOM	1519	O	HOH	W	24	49.633	72.784	25.609	1.00	43.42	W	O
ATOM	1520	O	HOH	W	25	45.647	81.140	-14.597	1.00	45.43	W	O
ATOM	1521	O	HOH	W	26	29.500	72.307	15.752	1.00	44.26	W	O
ATOM	1522	O	HOH	W	27	43.197	77.892	16.089	1.00	30.66	W	O
ATOM	1523	O	HOH	W	28	47.350	74.655	-0.158	1.00	39.87	W	O
ATOM	1524	O	HOH	W	29	26.554	78.008	4.961	1.00	38.44	W	O
ATOM	1525	O	HOH	W	30	55.303	64.739	6.010	1.00	37.34	W	O
ATOM	1526	O	HOH	W	31	55.374	58.722	4.896	1.00	43.37	W	O
ATOM	1527	O	HOH	W	32	49.367	55.003	-15.758	1.00	50.69	W	O
ATOM	1528	O	HOH	W	33	46.439	77.858	19.645	1.00	52.52	W	O
ATOM	1529	O	HOH	W	34	48.011	66.414	21.474	1.00	25.69	W	O
ATOM	1530	O	HOH	W	35	51.521	51.838	4.481	1.00	42.60	W	O
ATOM	1531	O	HOH	W	36	57.768	72.339	10.201	1.00	46.62	W	O
ATOM	1532	O	HOH	W	37	37.846	80.500	-11.735	1.00	50.47	W	O
ATOM	1533	O	HOH	W	38	49.047	70.595	19.637	1.00	34.22	W	O
ATOM	1534	O	HOH	W	39	18.847	71.613	8.947	1.00	55.09	W	O
ATOM	1535	O	HOH	W	40	44.992	80.107	16.403	1.00	40.14	W	O
ATOM	1536	O	HOH	W	41	51.025	59.019	18.298	1.00	37.20	W	O
ATOM	1537	O	HOH	W	42	47.523	50.368	5.353	1.00	41.09	W	O
ATOM	1538	O	HOH	W	43	33.281	54.193	8.463	1.00	54.18	W	O
ATOM	1539	O	HOH	W	44	59.392	63.665	-7.423	1.00	46.26	W	O
ATOM	1540	O	HOH	W	45	50.906	49.282	6.122	1.00	49.09	W	O
ATOM	1541	O	HOH	W	46	31.807	65.584	11.297	1.00	43.55	W	O
ATOM	1542	O	HOH	W	47	45.814	80.130	-0.264	1.00	42.96	W	O
ATOM	1543	O	HOH	W	48	37.473	68.410	5.395	1.00	35.66	W	O
ATOM	1544	O	HOH	W	49	52.735	67.404	-4.047	1.00	34.88	W	O
ATOM	1545	O	HOH	W	50	34.969	82.766	15.957	1.00	46.10	W	O
ATOM	1546	O	HOH	W	51	47.638	77.435	-0.134	1.00	41.41	W	O
ATOM	1547	O	HOH	W	52	60.884	68.584	-21.496	1.00	51.33	W	O
ATOM	1548	O	HOH	W	53	60.236	64.341	-23.675	1.00	54.66	W	O
ATOM	1549	O	HOH	W	54	53.509	49.795	-18.242	1.00	33.00	W	O
ATOM	1550	O	HOH	W	55	50.512	74.254	22.713	1.00	22.88	W	O
ATOM	1551	O	HOH	W	56	63.728	65.071	-19.855	1.00	49.76	W	O
ATOM	1552	O	HOH	W	57	59.413	63.004	-21.819	1.00	41.60	W	O
ATOM	1553	O	HOH	W	58	46.721	60.196	-18.525	1.00	41.39	W	O
ATOM	1554	O	HOH	W	59	39.935	65.669	-17.803	1.00	50.73	W	O
ATOM	1555	O	HOH	W	60	24.808	72.632	-5.316	1.00	46.59	W	O
ATOM	1556	O	HOH	W	61	34.963	66.719	11.365	1.00	48.22	W	O
ATOM	1557	O	HOH	W	62	52.489	51.346	-19.819	1.00	44.02	W	O
ATOM	1558	O	HOH	W	63	59.924	51.439	-20.955	1.00	37.71	W	O
ATOM	1559	O	HOH	W	64	58.930	55.649	-22.603	1.00	44.18	W	O
ATOM	1560	O	HOH	W	65	67.578	56.733	-20.882	1.00	60.12	W	O
ATOM	1561	O	HOH	W	66	67.205	55.935	-5.932	1.00	48.91	W	O
ATOM	1562	O	HOH	W	67	53.525	65.276	1.451	1.00	47.27	W	O
ATOM	1563	O	HOH	W	68	52.854	67.683	0.734	1.00	44.31	W	O
ATOM	1564	O	HOH	W	69	67.793	55.769	-11.566	1.00	42.47	W	O
ATOM	1565	O	HOH	W	70	52.376	46.272	-18.255	1.00	61.40	W	O
ATOM	1566	O	HOH	W	71	53.854	54.388	-22.714	1.00	40.19	W	O
ATOM	1567	O	HOH	W	72	51.995	51.653	-22.831	1.00	49.82	W	O
ATOM	1568	O	HOH	W	73	51.204	62.881	-26.936	1.00	45.15	W	O
ATOM	1569	O	HOH	W	74	37.800	66.404	-14.444	1.00	44.79	W	O
ATOM	1570	O	HOH	W	75	51.840	78.150	-20.877	1.00	40.98	W	O
ATOM	1571	O	HOH	W	76	55.740	73.560	-8.846	1.00	47.12	W	O
ATOM	1572	O	HOH	W	77	53.143	74.365	-2.217	1.00	52.47	W	O
ATOM	1573	O	HOH	W	78	49.675	73.651	-0.162	1.00	48.53	W	O
ATOM	1574	O	HOH	W	79	39.602	78.262	-14.322	1.00	61.41	W	O

FIG. 4A-26

ATOM	1575	O	HOH	W	80	42.807	81.691	-10.357	1.00	45.13	W	O
ATOM	1576	O	HOH	W	81	38.823	81.808	-9.309	1.00	40.41	W	O
ATOM	1577	O	HOH	W	82	39.138	81.139	-5.458	1.00	41.89	W	O
ATOM	1578	O	HOH	W	83	42.786	81.891	-6.928	1.00	34.18	W	O
ATOM	1579	O	HOH	W	84	48.842	81.394	-9.703	1.00	41.18	W	O
ATOM	1580	O	HOH	W	85	49.337	86.499	-13.856	1.00	45.74	W	O
ATOM	1581	O	HOH	W	86	39.242	68.644	21.970	1.00	41.67	W	O
ATOM	1582	O	HOH	W	87	37.860	72.193	20.200	1.00	50.26	W	O
ATOM	1583	O	HOH	W	88	39.023	74.111	23.542	1.00	58.82	W	O
ATOM	1584	O	HOH	W	89	34.332	74.670	23.845	1.00	48.86	W	O
ATOM	1585	O	HOH	W	90	28.620	79.710	-8.479	1.00	47.63	W	O
ATOM	1586	O	HOH	W	91	34.692	75.198	-10.675	1.00	52.41	W	O
ATOM	1587	O	HOH	W	92	20.823	64.841	-3.584	1.00	51.26	W	O
ATOM	1588	O	HOH	W	93	31.333	65.379	8.482	1.00	46.51	W	O
ATOM	1589	O	HOH	W	94	60.270	79.277	-6.509	1.00	54.12	W	O
ATOM	1590	O	HOH	W	95	38.107	82.069	10.845	1.00	53.15	W	O
ATOM	1591	O	HOH	W	96	36.215	85.457	6.374	1.00	60.09	W	O
ATOM	1592	O	HOH	W	97	29.494	77.621	0.711	1.00	49.89	W	O
ATOM	1593	O	HOH	W	98	27.730	79.793	10.538	1.00	50.55	W	O
ATOM	1594	O	HOH	W	99	30.043	81.050	10.692	1.00	60.76	W	O
ATOM	1595	O	HOH	W	100	34.636	61.952	18.734	1.00	49.06	W	O
ATOM	1596	O	HOH	W	101	32.859	74.761	19.605	1.00	47.67	W	O
ATOM	1597	O	HOH	W	102	40.473	73.226	20.027	1.00	51.19	W	O
ATOM	1598	O	HOH	W	103	47.036	75.374	25.994	1.00	49.51	W	O
ATOM	1599	O	HOH	W	104	46.745	79.701	23.325	1.00	48.71	W	O
ATOM	1600	O	HOH	W	105	55.713	56.128	-25.971	1.00	56.61	W	O
ATOM	1601	O	HOH	W	106	36.667	59.129	-2.628	1.00	55.67	W	O
ATOM	1602	O	HOH	W	107	44.326	54.528	0.795	1.00	52.63	W	O
ATOM	1603	O	HOH	W	108	48.981	51.885	3.187	1.00	44.79	W	O
ATOM	1604	O	HOH	W	109	37.660	79.531	0.981	1.00	41.36	W	O
ATOM	1605	O	HOH	W	110	45.882	84.878	0.250	1.00	55.76	W	O
ATOM	1606	O	HOH	W	111	50.514	85.144	0.286	1.00	52.85	W	O
ATOM	1607	O	HOH	W	112	56.927	64.753	-0.418	1.00	51.84	W	O
ATOM	1608	O	HOH	W	114	24.361	72.283	-12.242	1.00	46.45	W	O
ATOM	1609	O	HOH	W	115	52.506	49.336	-11.179	1.00	44.76	W	O
ATOM	1610	O	HOH	W	116	46.458	45.158	-15.671	1.00	55.55	W	O
ATOM	1611	O	HOH	W	117	45.411	84.226	22.861	1.00	53.91	W	O
ATOM	1612	O	HOH	W	118	49.323	84.189	17.080	1.00	53.28	W	O
ATOM	1613	O	HOH</									

FIG. 5

	Atom	Res.	Res.	X	Y	Z	OCC.	B
	Type		No.					
ATOM	1	CB	ASP	39	55.214	55.356	40.811	1.00 70.50
ATOM	2	CG	ASP	39	55.894	54.242	40.016	1.00 70.41
ATOM	3	OD1	ASP	39	56.377	53.268	40.638	1.00 68.36
ATOM	4	OD2	ASP	39	55.952	54.344	38.774	1.00 70.30
ATOM	5	C	ASP	39	53.337	55.993	39.281	1.00 69.71
ATOM	6	O	ASP	39	52.251	56.259	39.808	1.00 70.09
ATOM	7	N	ASP	39	54.388	57.699	40.722	1.00 70.21
ATOM	8	CA	ASP	39	54.643	56.466	39.916	1.00 70.16
ATOM	9	N	GLU	40	53.443	55.306	38.145	1.00 68.66
ATOM	10	CA	GLU	40	52.265	54.796	37.449	1.00 67.27
ATOM	11	CB	GLU	40	51.504	55.944	36.770	1.00 69.13
ATOM	12	CG	GLU	40	52.339	57.175	36.421	1.00 73.34
ATOM	13	CD	GLU	40	53.141	57.031	35.134	1.00 76.70
ATOM	14	OE1	GLU	40	52.523	56.846	34.061	1.00 77.69
ATOM	15	OE2	GLU	40	54.389	57.114	35.192	1.00 78.70
ATOM	16	C	GLU	40	52.544	53.681	36.442	1.00 64.60
ATOM	17	O	GLU	40	53.676	53.476	36.009	1.00 63.65
ATOM	18	N	LEU	41	51.486	52.957	36.091	1.00 62.33
ATOM	19	CA	LEU	41	51.557	51.843	35.153	1.00 60.05
ATOM	20	CB	LEU	41	50.314	50.957	35.277	1.00 59.92
ATOM	21	CG	LEU	41	50.100	50.145	36.551	1.00 60.42
ATOM	22	CD1	LEU	41	48.752	49.440	36.464	1.00 60.03
ATOM	23	CD2	LEU	41	51.228	49.134	36.721	1.00 60.26
ATOM	24	C	LEU	41	51.668	52.279	33.704	1.00 58.41
ATOM	25	O	LEU	41	50.915	53.140	33.244	1.00 58.19
ATOM	26	N	ILE	42	52.608	51.680	32.982	1.00 55.99
ATOM	27	CA	ILE	42	52.760	51.984	31.572	1.00 53.15
ATOM	28	CB	ILE	42	54.181	52.490	31.225	1.00 53.72
ATOM	29	CG2	ILE	42	54.437	53.835	31.893	1.00 53.90
ATOM	30	CG1	ILE	42	55.229	51.481	31.670	1.00 53.56
ATOM	31	CD1	ILE	42	56.632	51.956	31.414	1.00 54.40
ATOM	32	C	ILE	42	52.475	50.701	30.812	1.00 51.19
ATOM	33	O	ILE	42	52.784	49.607	31.289	1.00 50.52
ATOM	34	N	VAL	43	51.860	50.844	29.646	1.00 48.59
ATOM	35	CA	VAL	43	51.530	49.712	28.801	1.00 46.67
ATOM	36	CB	VAL	43	50.139	49.871	28.197	1.00 45.09
ATOM	37	CG1	VAL	43	49.847	48.712	27.254	1.00 43.49
ATOM	38	CG2	VAL	43	49.126	49.953	29.298	1.00 43.23
ATOM	39	C	VAL	43	52.537	49.575	27.658	1.00 46.20
ATOM	40	O	VAL	43	52.758	50.501	26.888	1.00 45.96
ATOM	41	N	LEU	44	53.149	48.408	27.565	1.00 45.72
ATOM	42	CA	LEU	44	54.121	48.134	26.522	1.00 43.98
ATOM	43	CB	LEU	44	55.398	47.579	27.157	1.00 44.64
ATOM	44	CG	LEU	44	56.040	48.607	28.092	1.00 45.81
ATOM	45	CD1	LEU	44	56.923	47.932	29.127	1.00 47.40
ATOM	46	CD2	LEU	44	56.835	49.601	27.254	1.00 46.63
ATOM	47	C	LEU	44	53.499	47.118	25.572	1.00 41.96
ATOM	48	O	LEU	44	53.538	45.917	25.824	1.00 41.75
ATOM	49	N	ASN	45	52.890	47.606	24.501	1.00 39.44
ATOM	50	CA	ASN	45	52.272	46.725	23.528	1.00 38.57
ATOM	51	CB	ASN	45	51.255	47.488	22.678	1.00 36.89
ATOM	52	CG	ASN	45	50.514	46.583	21.704	1.00 39.46
ATOM	53	OD1	ASN	45	51.026	45.538	21.273	1.00 38.79
ATOM	54	ND2	ASN	45	49.306	46.987	21.339	1.00 38.46
ATOM	55	C	ASN	45	53.365	46.152	22.620	1.00 38.24
ATOM	56	O	ASN	45	53.986	46.882	21.839	1.00 37.59
ATOM	57	N	VAL	46	53.592	44.845	22.724	1.00 37.26
ATOM	58	CA	VAL	46	54.606	44.176	21.915	1.00 36.19
ATOM	59	CB	VAL	46	55.604	43.442	22.825	1.00 34.19
ATOM	60	CG1	VAL	46	56.746	42.812	21.988	1.00 31.81

FIG. 5A-1

ATOM	61	CG2	VAL	46	56.140	44.432	23.864	1.00	30.02
ATOM	62	C	VAL	46	53.923	43.199	20.961	1.00	38.32
ATOM	63	O	VAL	46	53.558	42.089	21.345	1.00	37.84
ATOM	64	N	SER	47	53.751	43.632	19.715	1.00	40.58
ATOM	65	CA	SER	47	53.087	42.831	18.694	1.00	42.58
ATOM	66	CB	SER	47	53.869	41.560	18.423	1.00	44.39
ATOM	67	OG	SER	47	55.086	41.902	17.792	1.00	50.88
ATOM	68	C	SER	47	51.664	42.477	19.068	1.00	43.26
ATOM	69	O	SER	47	51.163	41.414	18.694	1.00	44.87
ATOM	70	N	GLY	48	51.011	43.369	19.806	1.00	43.21
ATOM	71	CA	GLY	48	49.638	43.125	20.202	1.00	44.14
ATOM	72	C	GLY	48	49.501	42.540	21.591	1.00	44.57
ATOM	73	O	GLY	48	48.420	42.573	22.165	1.00	44.13
ATOM	74	N	ARG	49	50.588	41.996	22.128	1.00	45.32
ATOM	75	CA	ARG	49	50.576	41.416	23.466	1.00	46.66
ATOM	76	CB	ARG	49	51.586	40.264	23.547	1.00	49.65
ATOM	77	CG	ARG	49	51.293	39.127	22.542	1.00	55.75
ATOM	78	CD	ARG	49	50.057	38.277	22.933	1.00	58.66
ATOM	79	NE	ARG	49	50.317	37.464	24.127	1.00	62.73
ATOM	80	CZ	ARG	49	51.193	36.453	24.192	1.00	64.10
ATOM	81	NH1	ARG	49	51.914	36.097	23.126	1.00	61.18
ATOM	82	NH2	ARG	49	51.362	35.799	25.340	1.00	64.18
ATOM	83	C	ARG	49	50.948	42.550	24.408	1.00	46.66
ATOM	84	O	ARG	49	52.070	43.055	24.369	1.00	46.65
ATOM	85	N	ARG	50	50.004	42.955	25.253	1.00	46.57
ATOM	86	CA	ARG	50	50.244	44.075	26.149	1.00	47.08
ATOM	87	CB	ARG	50	48.969	44.911	26.279	1.00	49.59
ATOM	88	CG	ARG	50	48.547	45.537	24.950	1.00	54.03
ATOM	89	CD	ARG	50	47.215	46.249	25.040	1.00	58.12
ATOM	90	NE	ARG	50	46.685	46.573	23.713	1.00	64.32
ATOM	91	CZ	ARG	50	46.426	45.669	22.767	1.00	66.71
ATOM	92	NH1	ARG	50	46.649	44.379	22.999	1.00	67.42
ATOM	93	NH2	ARG	50	45.938	46.051	21.589	1.00	66.06
ATOM	94	C	ARG	50	50.800	43.765	27.518	1.00	45.72
ATOM	95	O	ARG	50	50.195	43.066	28.321	1.00	48.18
ATOM	96	N	PHE	51	51.974	44.313	27.773	1.00	42.53
ATOM	97	CA	PHE	51	52.644	44.135	29.037	1.00	41.07
ATOM	98	CB	PHE	51	54.131	43.896	28.789	1.00	39.97
ATOM	99	CG	PHE	51	54.426	42.601	28.103	1.00	38.27
ATOM	100	CD1	PHE	51	54.708	41.455	28.846	1.00	36.74
ATOM	101	CD2	PHE	51	54.451	42.526	26.704	1.00	37.97
ATOM	102	CE1	PHE	51	55.020	40.247	28.209	1.00	37.47
ATOM	103	CE2	PHE	51	54.760	41.329	26.052	1.00	38.16
ATOM	104	CZ	PHE	51	55.049	40.183	26.810	1.00	37.64
ATOM	105	C	PHE	51	52.457	45.391	29.873	1.00	40.85
ATOM	106	O	PHE	51	52.334	46.490	29.342	1.00	41.29
ATOM	107	N	GLN	52	52.414	45.232	31.182	1.00	41.27
ATOM	108	CA	GLN	52	52.279	46.383	32.052	1.00	43.58
ATOM	109	CB	GLN	52	50.896	46.443	32.696	1.00	44.18
ATOM	110	CG	GLN	52	49.766	46.687	31.707	1.00	48.74
ATOM	111	CD	GLN	52	48.431	46.856	32.400	1.00	50.39
ATOM	112	OE1	GLN	52	48.183	47.878	33.037	1.00	50.70
ATOM	113	NE2	GLN	52	47.568	45.844	32.293	1.00	50.50
ATOM	114	C	GLN	52	53.337	46.320	33.132	1.00	44.60
ATOM	115	O	GLN	52	53.733	45.241	33.589	1.00	45.28
ATOM	116	N	THR	53	53.808	47.486	33.533	1.00	43.67
ATOM	117	CA	THR	53	54.800	47.534	34.569	1.00	44.06
ATOM	118	CB	THR	53	56.185	47.203	34.006	1.00	43.23
ATOM	119	OG1	THR	53	57.141	47.216	35.067	1.00	42.30
ATOM	120	CG2	THR	53	56.592	48.220	32.941	1.00	44.61
ATOM	121	C	THR	53	54.772	48.930	35.152	1.00	45.23
ATOM	122	O	THR	53	54.016	49.787	34.691	1.00	44.70

FIG. 5A-2

ATOM	123	N	TRP	54	55.576	49.151	36.181	1.00	47.63
ATOM	124	CA	TRP	54	55.645	50.456	36.810	1.00	50.34
ATOM	125	CB	TRP	54	55.981	50.320	38.298	1.00	51.45
ATOM	126	CG	TRP	54	54.902	49.655	39.081	1.00	52.92
ATOM	127	CD2	TRP	54	53.642	50.224	39.453	1.00	53.70
ATOM	128	CE2	TRP	54	52.918	49.222	40.137	1.00	54.69
ATOM	129	CE3	TRP	54	53.053	51.484	39.274	1.00	54.86
ATOM	130	CD1	TRP	54	54.895	48.372	39.542	1.00	53.32
ATOM	131	NE1	TRP	54	53.707	48.102	40.178	1.00	54.02
ATOM	132	CZ2	TRP	54	51.625	49.442	40.646	1.00	54.65
ATOM	133	CZ3	TRP	54	51.767	51.705	39.781	1.00	55.23
ATOM	134	CH2	TRP	54	51.069	50.685	40.458	1.00	55.06
ATOM	135	C	TRP	54	56.713	51.277	36.115	1.00	51.83
ATOM	136	O	TRP	54	57.801	50.774	35.818	1.00	51.27
ATOM	137	N	ARG	55	56.392	52.539	35.849	1.00	53.95
ATOM	138	CA	ARG	55	57.334	53.435	35.196	1.00	55.48
ATOM	139	CB	ARG	55	56.845	54.888	35.269	1.00	57.33
ATOM	140	CG	ARG	55	57.920	55.930	34.944	1.00	59.98
ATOM	141	CD	ARG	55	57.374	57.366	34.962	1.00	63.12
ATOM	142	NE	ARG	55	56.782	57.761	36.245	1.00	65.32
ATOM	143	CZ	ARG	55	57.445	57.837	37.399	1.00	66.97
ATOM	144	NH1	ARG	55	58.743	57.548	37.455	1.00	67.43
ATOM	145	NH2	ARG	55	56.805	58.197	38.507	1.00	67.22
ATOM	146	C	ARG	55	58.694	53.322	35.857	1.00	54.89
ATOM	147	O	ARG	55	59.708	53.352	35.179	1.00	55.46
ATOM	148	N	THR	56	58.718	53.174	37.177	1.00	54.45
ATOM	149	CA	THR	56	59.987	53.077	37.889	1.00	55.77
ATOM	150	CB	THR	56	59.808	53.316	39.423	1.00	56.63
ATOM	151	OG1	THR	56	58.823	52.416	39.956	1.00	56.88
ATOM	152	CG2	THR	56	59.374	54.758	39.685	1.00	56.34
ATOM	153	C	THR	56	60.720	51.757	37.672	1.00	56.39
ATOM	154	O	THR	56	61.926	51.676	37.898	1.00	56.38
ATOM	155	N	THR	57	59.998	50.726	37.234	1.00	56.80
ATOM	156	CA	THR	57	60.606	49.417	36.992	1.00	56.99
ATOM	157	CB	THR	57	59.542	48.353	36.599	1.00	56.50
ATOM	158	OG1	THR	57	58.491	48.346	37.569	1.00	57.90
ATOM	159	CG2	THR	57	60.163	46.958	36.541	1.00	55.26
ATOM	160	C	THR	57	61.614	49.536	35.851	1.00	57.27
ATOM	161	O	THR	57	62.736	49.027	35.929	1.00	55.68
ATOM	162	N	LEU	58	61.202	50.222	34.791	1.00	57.75
ATOM	163	CA	LEU	58	62.055	50.400	33.634	1.00	59.55
ATOM	164	CB	LEU	58	61.247	50.971	32.465	1.00	57.58
ATOM	165	CG	LEU	58	60.010	50.183	32.022	1.00	56.39
ATOM	166	CD1	LEU	58	59.507	50.742	30.703	1.00	53.83
ATOM	167	CD2	LEU	58	60.353	48.704	31.872	1.00	54.51
ATOM	168	C	LEU	58	63.213	51.328	33.959	1.00	62.01
ATOM	169	O	LEU	58	64.341	51.109	33.515	1.00	63.28
ATOM	170	N	GLU	59	62.933	52.355	34.755	1.00	64.08
ATOM	171	CA	GLU	59	63.940	53.338	35.122	1.00	66.29
ATOM	172	CB	GLU	59	63.279	54.473	35.896	1.00	66.26
ATOM	173	CG	GLU	59	62.090	55.047	35.163	1.00	67.32
ATOM	174	CD	GLU	59	61.496	56.259	35.848	1.00	68.99
ATOM	175	OE1	GLU	59	61.242	56.200	37.076	1.00	68.90
ATOM	176	OE2	GLU	59	61.274	57.273	35.147	1.00	69.85
ATOM	177	C	GLU	59	65.120	52.784	35.912	1.00	67.79
ATOM	178	O	GLU	59	66.098	53.492	36.139	1.00	68.37
ATOM	179	N	ARG	60	65.038	51.522	36.319	1.00	69.04
ATOM	180	CA	ARG	60	66.116	50.906	37.082	1.00	70.72
ATOM	181	CB	ARG	60	65.651	49.579	37.688	1.00	71.87
ATOM	182	CG	ARG	60	64.544	49.740	38.708	1.00	73.32
ATOM	183	CD	ARG	60	63.980	48.411	39.147	1.00	75.03
ATOM	184	NE	ARG	60	62.973	48.586	40.189	1.00	77.17

FIG. 5A-3

ATOM	185	CZ	ARG	60	62.283	47.590	40.740	1.00	78.54
ATOM	186	NH1	ARG	60	62.486	46.339	40.345	1.00	78.65
ATOM	187	NH2	ARG	60	61.397	47.843	41.697	1.00	78.46
ATOM	188	C	ARG	60	67.346	50.674	36.218	1.00	71.31
ATOM	189	O	ARG	60	68.411	50.308	36.726	1.00	71.43
ATOM	190	N	TYR	61	67.201	50.890	34.914	1.00	71.73
ATOM	191	CA	TYR	61	68.313	50.695	33.994	1.00	72.66
ATOM	192	CB	TYR	61	68.272	49.292	33.392	1.00	72.57
ATOM	193	CG	TYR	61	68.575	48.200	34.385	1.00	73.77
ATOM	194	CD1	TYR	61	69.880	47.975	34.824	1.00	73.63
ATOM	195	CE1	TYR	61	70.159	47.003	35.779	1.00	73.83
ATOM	196	CD2	TYR	61	67.551	47.419	34.927	1.00	73.93
ATOM	197	CE2	TYR	61	67.820	46.443	35.885	1.00	74.56
ATOM	198	CZ	TYR	61	69.126	46.242	36.307	1.00	74.41
ATOM	199	OH	TYR	61	69.399	45.283	37.255	1.00	74.86
ATOM	200	C	TYR	61	68.341	51.709	32.871	1.00	73.44
ATOM	201	O	TYR	61	67.826	51.452	31.785	1.00	73.83
ATOM	202	N	PRO	62	68.929	52.889	33.121	1.00	74.36
ATOM	203	CD	PRO	62	69.331	53.456	34.419	1.00	74.45
ATOM	204	CA	PRO	62	68.997	53.905	32.070	1.00	74.56
ATOM	205	CB	PRO	62	69.579	55.109	32.800	1.00	74.72
ATOM	206	CG	PRO	62	69.072	54.920	34.202	1.00	74.36
ATOM	207	C	PRO	62	69.941	53.353	31.013	1.00	74.64
ATOM	208	O	PRO	62	70.344	52.202	31.106	1.00	75.75
ATOM	209	N	ASP	63	70.295	54.161	30.021	1.00	74.48
ATOM	210	CA	ASP	63	71.204	53.738	28.948	1.00	74.84
ATOM	211	CB	ASP	63	72.556	53.267	29.523	1.00	75.88
ATOM	212	CG	ASP	63	72.587	51.773	29.815	1.00	77.77
ATOM	213	OD1	ASP	63	72.692	51.401	31.007	1.00	79.08
ATOM	214	OD2	ASP	63	72.506	50.970	28.854	1.00	78.37
ATOM	215	C	ASP	63	70.628	52.654	28.019	1.00	73.47
ATOM	216	O	ASP	63	71.003	52.586	26.840	1.00	74.20
ATOM	217	N	THR	64	69.741	51.803	28.542	1.00	70.48
ATOM	218	CA	THR	64	69.114	50.761	27.724	1.00	67.40
ATOM	219	CB	THR	64	68.687	49.535	28.554	1.00	66.93
ATOM	220	OG1	THR	64	67.589	49.891	29.396	1.00	66.37
ATOM	221	CG2	THR	64	69.842	49.036	29.411	1.00	66.49
ATOM	222	C	THR	64	67.866	51.393	27.119	1.00	65.32
ATOM	223	O	THR	64	67.282	52.300	27.703	1.00	65.05
ATOM	224	N	LEU	65	67.456	50.916	25.953	1.00	63.11
ATOM	225	CA	LEU	65	66.295	51.469	25.269	1.00	60.88
ATOM	226	CB	LEU	65	65.885	50.522	24.141	1.00	60.61
ATOM	227	CG	LEU	65	64.995	51.050	23.014	1.00	60.66
ATOM	228	CD1	LEU	65	64.884	49.976	21.954	1.00	62.63
ATOM	229	CD2	LEU	65	63.620	51.418	23.521	1.00	60.02
ATOM	230	C	LEU	65	65.092	51.764	26.177	1.00	59.36
ATOM	231	O	LEU	65	64.588	52.888	26.206	1.00	58.80
ATOM	232	N	LEU	66	64.647	50.754	26.920	1.00	58.17
ATOM	233	CA	LEU	66	63.485	50.872	27.803	1.00	58.28
ATOM	234	CB	LEU	66	63.027	49.477	28.237	1.00	56.64
ATOM	235	CG	LEU	66	62.548	48.557	27.114	1.00	55.41
ATOM	236	CD1	LEU	66	62.291	47.169	27.678	1.00	53.95
ATOM	237	CD2	LEU	66	61.296	49.139	26.460	1.00	52.67
ATOM	238	C	LEU	66	63.653	51.746	29.043	1.00	58.89
ATOM	239	O	LEU	66	62.706	52.408	29.468	1.00	58.11
ATOM	240	N	GLY	67	64.846	51.726	29.632	1.00	59.32
ATOM	241	CA	GLY	67	65.099	52.532	30.813	1.00	60.19
ATOM	242	C	GLY	67	65.526	53.937	30.428	1.00	60.82
ATOM	243	O	GLY	67	65.957	54.725	31.272	1.00	61.20
ATOM	244	N	SER	68	65.402	54.240	29.138	1.00	60.66
ATOM	245	CA	SER	68	65.764	55.539	28.590	1.00	60.28
ATOM	246	CB	SER	68	66.749	55.388	27.440	1.00	59.39

FIG. 5A-4

ATOM	247	OG	SER	68	68.004	54.977	27.924	1.00	63.29
ATOM	248	C	SER	68	64.551	56.239	28.053	1.00	60.43
ATOM	249	O	SER	68	63.424	55.761	28.173	1.00	61.17
ATOM	250	N	THR	69	64.800	57.386	27.444	1.00	60.08
ATOM	251	CA	THR	69	63.736	58.160	26.845	1.00	59.06
ATOM	252	CB	THR	69	64.055	59.662	26.873	1.00	59.73
ATOM	253	OG1	THR	69	65.371	59.882	26.339	1.00	60.24
ATOM	254	CG2	THR	69	63.968	60.195	28.309	1.00	59.10
ATOM	255	C	THR	69	63.619	57.691	25.410	1.00	57.91
ATOM	256	O	THR	69	62.745	58.145	24.676	1.00	57.87
ATOM	257	N	GLU	70	64.505	56.778	25.015	1.00	57.31
ATOM	258	CA	GLU	70	64.477	56.238	23.659	1.00	57.47
ATOM	259	CB	GLU	70	65.639	55.277	23.428	1.00	59.18
ATOM	260	CG	GLU	70	66.994	55.915	23.540	1.00	63.22
ATOM	261	CD	GLU	70	68.079	55.059	22.923	1.00	66.76
ATOM	262	OE1	GLU	70	68.230	53.889	23.341	1.00	68.38
ATOM	263	OE2	GLU	70	68.782	55.558	22.017	1.00	68.76
ATOM	264	C	GLU	70	63.166	55.507	23.388	1.00	55.73
ATOM	265	O	GLU	70	62.652	55.538	22.274	1.00	55.19
ATOM	266	N	LYS	71	62.628	54.842	24.404	1.00	54.75
ATOM	267	CA	LYS	71	61.369	54.133	24.230	1.00	54.14
ATOM	268	CB	LYS	71	60.958	53.437	25.537	1.00	54.23
ATOM	269	CG	LYS	71	60.710	54.362	26.719	1.00	53.85
ATOM	270	CD	LYS	71	60.034	53.603	27.859	1.00	52.55
ATOM	271	CE	LYS	71	59.957	54.423	29.141	1.00	51.71
ATOM	272	NZ	LYS	71	61.303	54.808	29.645	1.00	49.96
ATOM	273	C	LYS	71	60.286	55.120	23.792	1.00	53.14
ATOM	274	O	LYS	71	59.343	54.759	23.080	1.00	52.24
ATOM	275	N	GLU	72	60.448	56.373	24.205	1.00	52.94
ATOM	276	CA	GLU	72	59.501	57.436	23.881	1.00	53.32
ATOM	277	CB	GLU	72	60.009	58.764	24.450	1.00	54.50
ATOM	278	CG	GLU	72	58.977	59.524	25.283	1.00	57.37
ATOM	279	CD	GLU	72	58.406	58.693	26.433	1.00	59.11
ATOM	280	OE1	GLU	72	57.161	58.564	26.505	1.00	59.34
ATOM	281	OE2	GLU	72	59.197	58.175	27.259	1.00	59.00
ATOM	282	C	GLU	72	59.191	57.592	22.388	1.00	52.40
ATOM	283	O	GLU	72	58.173	58.181	22.022	1.00	53.44
ATOM	284	N	PHE	73	60.056	57.064	21.527	1.00	51.08
ATOM	285	CA	PHE	73	59.848	57.155	20.081	1.00	50.78
ATOM	286	CB	PHE	73	61.192	57.089	19.351	1.00	50.26
ATOM	287	CG	PHE	73	62.085	58.255	19.637	1.00	49.79
ATOM	288	CD1	PHE	73	61.714	59.543	19.250	1.00	49.48
ATOM	289	CD2	PHE	73	63.285	58.079	20.322	1.00	50.37
ATOM	290	CE1	PHE	73	62.527	60.642	19.545	1.00	48.27
ATOM	291	CE2	PHE	73	64.109	59.175	20.625	1.00	50.17
ATOM	292	CZ	PHE	73	63.726	60.459	20.234	1.00	48.58
ATOM	293	C	PHE	73	58.938	56.046	19.572	1.00	50.85
ATOM	294	O	PHE	73	58.545	56.032	18.402	1.00	50.48
ATOM	295	N	PHE	74	58.623	55.110	20.463	1.00	50.91
ATOM	296	CA	PHE	74	57.760	53.982	20.141	1.00	50.99
ATOM	297	CB	PHE	74	58.372	52.681	20.672	1.00	48.73
ATOM	298	CG	PHE	74	59.623	52.276	19.956	1.00	46.56
ATOM	299	CD1	PHE	74	59.556	51.506	18.797	1.00	45.10
ATOM	300	CD2	PHE	74	60.866	52.730	20.391	1.00	44.31
ATOM	301	CE1	PHE	74	60.707	51.199	18.078	1.00	43.89
ATOM	302	CE2	PHE	74	62.024	52.429	19.679	1.00	43.63
ATOM	303	CZ	PHE	74	61.944	51.664	18.519	1.00	42.76
ATOM	304	C	PHE	74	56.427	54.249	20.805	1.00	52.87
ATOM	305	O	PHE	74	55.436	53.553	20.562	1.00	50.58
ATOM	306	N	PHE	75	56.413	55.278	21.646	1.00	55.76
ATOM	307	CA	PHE	75	55.201	55.649	22.351	1.00	60.10
ATOM	308	CB	PHE	75	55.500	56.647	23.460	1.00	60.98

FIG. 5A-5

ATOM	309	CG	PHE	75	54.327	56.914	24.355	1.00	62.93
ATOM	310	CD1	PHE	75	53.928	55.967	25.300	1.00	63.22
ATOM	311	CD2	PHE	75	53.621	58.113	24.261	1.00	62.80
ATOM	312	CE1	PHE	75	52.843	56.212	26.142	1.00	63.93
ATOM	313	CE2	PHE	75	52.537	58.370	25.094	1.00	63.01
ATOM	314	CZ	PHE	75	52.146	57.418	26.039	1.00	63.85
ATOM	315	C	PHE	75	54.190	56.265	21.404	1.00	62.23
ATOM	316	O	PHE	75	54.500	57.200	20.669	1.00	63.07
ATOM	317	N	ASN	76	52.984	55.720	21.416	1.00	64.68
ATOM	318	CA	ASN	76	51.913	56.234	20.587	1.00	66.67
ATOM	319	CB	ASN	76	50.997	55.098	20.155	1.00	66.15
ATOM	320	CG	ASN	76	49.830	55.586	19.341	1.00	66.86
ATOM	321	OD1	ASN	76	49.263	56.638	19.636	1.00	66.78
ATOM	322	ND2	ASN	76	49.453	54.826	18.317	1.00	66.43
ATOM	323	C	ASN	76	51.151	57.224	21.470	1.00	68.71
ATOM	324	O	ASN	76	50.967	56.982	22.661	1.00	69.24
ATOM	325	N	GLU	77	50.713	58.339	20.897	1.00	70.45
ATOM	326	CA	GLU	77	50.002	59.344	21.678	1.00	72.19
ATOM	327	CB	GLU	77	50.310	60.747	21.137	1.00	74.36
ATOM	328	CG	GLU	77	51.596	61.358	21.691	1.00	76.69
ATOM	329	CD	GLU	77	51.472	61.742	23.162	1.00	79.10
ATOM	330	OE1	GLU	77	50.434	61.409	23.780	1.00	79.73
ATOM	331	OE2	GLU	77	52.411	62.374	23.703	1.00	80.26
ATOM	332	C	GLU	77	48.494	59.143	21.765	1.00	72.07
ATOM	333	O	GLU	77	47.878	59.534	22.760	1.00	71.46
ATOM	334	N	ASP	78	47.897	58.538	20.738	1.00	71.94
ATOM	335	CA	ASP	78	46.455	58.313	20.750	1.00	71.95
ATOM	336	CB	ASP	78	45.892	58.220	19.315	1.00	74.09
ATOM	337	CG	ASP	78	46.492	57.074	18.501	1.00	76.55
ATOM	338	OD1	ASP	78	47.678	57.164	18.119	1.00	77.76
ATOM	339	OD2	ASP	78	45.772	56.085	18.230	1.00	76.77
ATOM	340	C	ASP	78	46.029	57.093	21.583	1.00	70.92
ATOM	341	O	ASP	78	45.096	57.188	22.376	1.00	71.45
ATOM	342	N	THR	79	46.703	55.957	21.418	1.00	68.89
ATOM	343	CA	THR	79	46.361	54.769	22.198	1.00	66.93
ATOM	344	CB	THR	79	46.846	53.474	21.516	1.00	67.02
ATOM	345	OG1	THR	79	48.274	53.493	21.415	1.00	66.18
ATOM	346	CG2	THR	79	46.245	53.342	20.126	1.00	66.05
ATOM	347	C	THR	79	47.019	54.867	23.572	1.00	65.69
ATOM	348	O	THR	79	46.723	54.085	24.472	1.00	65.59
ATOM	349	N	LYS	80	47.914	55.840	23.715	1.00	64.28
ATOM	350	CA	LYS	80	48.642	56.092	24.958	1.00	63.28
ATOM	351	CB	LYS	80	47.685	56.585	26.046	1.00	65.55
ATOM	352	CG	LYS	80	46.909	57.841	25.681	1.00	68.59
ATOM	353	CD	LYS	80	45.989	58.256	26.823	1.00	71.40
ATOM	354	CE	LYS	80	44.998	59.321	26.383	1.00	72.80
ATOM	355	NZ	LYS	80	44.142	58.853	25.241	1.00	74.44
ATOM	356	C	LYS	80	49.432	54.898	25.486	1.00	60.94
ATOM	357	O	LYS	80	49.539	54.703	26.691	1.00	61.65
ATOM	358	N	GLU	81	49.992	54.105	24.581	1.00	58.53
ATOM	359	CA	GLU	81	50.784	52.934	24.955	1.00	55.25
ATOM	360	CB	GLU	81	49.930	51.664	24.850	1.00	55.98
ATOM	361	CG	GLU	81	49.207	51.556	23.518	1.00	57.85
ATOM	362	CD	GLU	81	48.430	50.263	23.341	1.00	60.26
ATOM	363	OE1	GLU	81	47.709	49.854	24.282	1.00	59.52
ATOM	364	OE2	GLU	81	48.529	49.670	22.239	1.00	60.66
ATOM	365	C	GLU	81	51.984	52.817	24.018	1.00	52.16
ATOM	366	O	GLU	81	51.926	53.249	22.866	1.00	50.02
ATOM	367	N	TYR	82	53.074	52.246	24.511	1.00	49.44
ATOM	368	CA	TYR	82	54.255	52.061	23.677	1.00	47.50
ATOM	369	CB	TYR	82	55.479	51.774	24.530	1.00	47.89
ATOM	370	CG	TYR	82	55.849	52.873	25.477	1.00	49.75

FIG. 5A-6

ATOM	371	CD1	TYR	82	55.374	52.881	26.784	1.00	49.95
ATOM	372	CE1	TYR	82	55.766	53.876	27.681	1.00	51.85
ATOM	373	CD2	TYR	82	56.718	53.891	25.078	1.00	50.36
ATOM	374	CE2	TYR	82	57.115	54.888	25.959	1.00	51.53
ATOM	375	CZ	TYR	82	56.640	54.876	27.259	1.00	52.93
ATOM	376	OH	TYR	82	57.055	55.853	28.134	1.00	53.43
ATOM	377	C	TYR	82	54.027	50.868	22.760	1.00	45.30
ATOM	378	O	TYR	82	53.469	49.865	23.188	1.00	44.28
ATOM	379	N	PHE	83	54.431	50.973	21.498	1.00	43.88
ATOM	380	CA	PHE	83	54.267	49.842	20.600	1.00	43.34
ATOM	381	CB	PHE	83	53.347	50.169	19.428	1.00	41.69
ATOM	382	CG	PHE	83	53.003	48.961	18.605	1.00	43.65
ATOM	383	CD1	PHE	83	52.118	48.000	19.100	1.00	43.82
ATOM	384	CD2	PHE	83	53.654	48.712	17.399	1.00	42.56
ATOM	385	CE1	PHE	83	51.899	46.800	18.408	1.00	43.59
ATOM	386	CE2	PHE	83	53.446	47.520	16.699	1.00	42.94
ATOM	387	CZ	PHE	83	52.567	46.557	17.205	1.00	43.27
ATOM	388	C	PHE	83	55.608	49.337	20.061	1.00	43.66
ATOM	389	O	PHE	83	56.454	50.115	19.638	1.00	43.24
ATOM	390	N	PHE	84	55.791	48.021	20.098	1.00	44.42
ATOM	391	CA	PHE	84	57.007	47.372	19.618	1.00	44.29
ATOM	392	CB	PHE	84	57.807	46.836	20.798	1.00	43.29
ATOM	393	CG	PHE	84	58.392	47.902	21.668	1.00	43.58
ATOM	394	CD1	PHE	84	59.529	48.595	21.270	1.00	44.09
ATOM	395	CD2	PHE	84	57.812	48.208	22.903	1.00	44.98
ATOM	396	CE1	PHE	84	60.091	49.583	22.095	1.00	44.01
ATOM	397	CE2	PHE	84	58.358	49.188	23.735	1.00	44.34
ATOM	398	CZ	PHE	84	59.502	49.878	23.332	1.00	43.58
ATOM	399	C	PHE	84	56.659	46.218	18.685	1.00	44.88
ATOM	400	O	PHE	84	55.971	45.274	19.085	1.00	44.42
ATOM	401	N	ASP	85	57.133	46.297	17.444	1.00	46.48
ATOM	402	CA	ASP	85	56.889	45.247	16.449	1.00	47.88
ATOM	403	CB	ASP	85	56.928	45.853	15.043	1.00	49.11
ATOM	404	CG	ASP	85	56.157	45.023	14.015	1.00	53.94
ATOM	405	OD1	ASP	85	55.306	44.190	14.408	1.00	55.67
ATOM	406	OD2	ASP	85	56.387	45.222	12.798	1.00	56.62
ATOM	407	C	ASP	85	57.978	44.176	16.606	1.00	47.44
ATOM	408	O	ASP	85	58.716	43.872	15.667	1.00	48.27
ATOM	409	N	ARG	86	58.070	43.619	17.812	1.00	46.05
ATOM	410	CA	ARG	86	59.071	42.608	18.145	1.00	45.60
ATOM	411	CB	ARG	86	60.029	43.145	19.209	1.00	47.86
ATOM	412	CG	ARG	86	60.520	44.548	18.960	1.00	50.28
ATOM	413	CD	ARG	86	61.433	44.610	17.757	1.00	51.97
ATOM	414	NE	ARG	86	62.671	43.875	17.977	1.00	53.65
ATOM	415	CZ	ARG	86	63.752	44.003	17.213	1.00	55.14
ATOM	416	NH1	ARG	86	63.742	44.842	16.184	1.00	55.40
ATOM	417	NH2	ARG	86	64.842	43.292	17.474	1.00	55.06
ATOM	418	C	ARG	86	58.430	41.356	18.707	1.00	44.07
ATOM	419	O	ARG	86	57.220	41.303	18.903	1.00	44.04
ATOM	420	N	ASP	87	59.266	40.361	18.988	1.00	42.89
ATOM	421	CA	ASP	87	58.829	39.095	19.573	1.00	41.09
ATOM	422	CB	ASP	87	59.971	38.078	19.529	1.00	43.03
ATOM	423	CG	ASP	87	59.678	36.833	20.350	1.00	46.61
ATOM	424	OD1	ASP	87	58.662	36.153	20.076	1.00	49.17
ATOM	425	OD2	ASP	87	60.465	36.531	21.275	1.00	48.42
ATOM	426	C	ASP	87	58.394	39.332	21.029	1.00	38.83
ATOM	427	O	ASP	87	59.158	39.823	21.847	1.00	36.58
ATOM	428	N	PRO	88	57.149	38.984	21.364	1.00	39.18
ATOM	429	CD	PRO	88	56.057	38.515	20.493	1.00	39.02
ATOM	430	CA	PRO	88	56.685	39.196	22.733	1.00	40.36
ATOM	431	CB	PRO	88	55.173	39.102	22.599	1.00	39.17
ATOM	432	CG	PRO	88	54.992	38.127	21.485	1.00	40.19

FIG. 5A-7

ATOM	433	C	PRO	88	57.242	38.253	23.790	1.00	43.06
ATOM	434	O	PRO	88	57.216	38.577	24.977	1.00	43.51
ATOM	435	N	GLU	89	57.764	37.101	23.373	1.00	46.23
ATOM	436	CA	GLU	89	58.304	36.144	24.334	1.00	48.70
ATOM	437	CB	GLU	89	58.380	34.752	23.722	1.00	52.38
ATOM	438	CG	GLU	89	58.493	33.666	24.783	1.00	60.05
ATOM	439	CD	GLU	89	57.253	33.595	25.681	1.00	64.01
ATOM	440	OE1	GLU	89	57.397	33.241	26.882	1.00	64.50
ATOM	441	OE2	GLU	89	56.137	33.881	25.178	1.00	64.30
ATOM	442	C	GLU	89	59.674	36.530	24.899	1.00	48.12
ATOM	443	O	GLU	89	59.919	36.375	26.096	1.00	48.45
ATOM	444	N	VAL	90	60.573	37.024	24.053	1.00	46.79
ATOM	445	CA	VAL	90	61.883	37.429	24.543	1.00	46.24
ATOM	446	CB	VAL	90	62.912	37.556	23.390	1.00	46.23
ATOM	447	CG1	VAL	90	64.200	38.216	23.892	1.00	46.75
ATOM	448	CG2	VAL	90	63.235	36.178	22.852	1.00	46.16
ATOM	449	C	VAL	90	61.723	38.762	25.271	1.00	45.27
ATOM	450	O	VAL	90	62.461	39.069	26.213	1.00	44.80
ATOM	451	N	PHE	91	60.758	39.564	24.837	1.00	43.80
ATOM	452	CA	PHE	91	60.523	40.820	25.523	1.00	43.18
ATOM	453	CB	PHE	91	59.370	41.585	24.893	1.00	42.97
ATOM	454	CG	PHE	91	59.012	42.821	25.647	1.00	43.07
ATOM	455	CD1	PHE	91	59.717	44.002	25.436	1.00	44.28
ATOM	456	CD2	PHE	91	58.024	42.787	26.625	1.00	42.21
ATOM	457	CE1	PHE	91	59.449	45.135	26.190	1.00	45.69
ATOM	458	CE2	PHE	91	57.748	43.912	27.389	1.00	44.59
ATOM	459	CZ	PHE	91	58.465	45.094	27.171	1.00	45.12
ATOM	460	C	PHE	91	60.165	40.481	26.980	1.00	42.61
ATOM	461	O	PHE	91	60.514	41.207	27.911	1.00	38.82
ATOM	462	N	ARG	92	59.452	39.375	27.164	1.00	44.18
ATOM	463	CA	ARG	92	59.077	38.940	28.502	1.00	46.75
ATOM	464	CB	ARG	92	58.307	37.614	28.447	1.00	48.64
ATOM	465	CG	ARG	92	57.863	37.086	29.807	1.00	51.36
ATOM	466	CD	ARG	92	57.070	35.782	29.668	1.00	55.95
ATOM	467	NE	ARG	92	57.887	34.670	29.184	1.00	59.25
ATOM	468	CZ	ARG	92	58.842	34.074	29.895	1.00	62.25
ATOM	469	NH1	ARG	92	59.107	34.478	31.129	1.00	63.09
ATOM	470	NH2	ARG	92	59.534	33.067	29.377	1.00	64.82
ATOM	471	C	ARG	92	60.349	38.769	29.330	1.00	46.81
ATOM	472	O	ARG	92	60.422	39.233	30.462	1.00	46.46
ATOM	473	N	CYS	93	61.353	38.105	28.767	1.00	46.69
ATOM	474	CA	CYS	93	62.599	37.921	29.492	1.00	48.63
ATOM	475	CB	CYS	93	63.525	36.960	28.749	1.00	51.16
ATOM	476	SG	CYS	93	62.985	35.255	28.915	1.00	63.04
ATOM	477	C	CYS	93	63.311	39.238	29.746	1.00	46.44
ATOM	478	O	CYS	93	63.880	39.433	30.819	1.00	46.33
ATOM	479	N	VAL	94	63.280	40.140	28.767	1.00	44.87
ATOM	480	CA	VAL	94	63.923	41.440	28.927	1.00	44.26
ATOM	481	CB	VAL	94	63.870	42.279	27.621	1.00	44.57
ATOM	482	CG1	VAL	94	64.234	43.747	27.910	1.00	40.48
ATOM	483	CG2	VAL	94	64.828	41.682	26.586	1.00	42.87
ATOM	484	C	VAL	94	63.224	42.212	30.040	1.00	44.58
ATOM	485	O	VAL	94	63.874	42.767	30.927	1.00	44.35
ATOM	486	N	LEU	95	61.896	42.232	29.996	1.00	44.79
ATOM	487	CA	LEU	95	61.117	42.929	31.003	1.00	44.66
ATOM	488	CB	LEU	95	59.634	42.822	30.675	1.00	43.14
ATOM	489	CG	LEU	95	58.671	43.599	31.567	1.00	43.26
ATOM	490	CD1	LEU	95	59.141	45.065	31.718	1.00	40.90
ATOM	491	CD2	LEU	95	57.274	43.509	30.948	1.00	41.20
ATOM	492	C	LEU	95	61.381	42.364	32.391	1.00	46.49
ATOM	493	O	LEU	95	61.425	43.107	33.377	1.00	47.23
ATOM	494	N	ASN	96	61.565	41.051	32.477	1.00	47.13

FIG. 5A-8

ATOM	495	CA	ASN	96	61.822	40.440	33.769	1.00	49.47
ATOM	496	CB	ASN	96	61.676	38.922	33.686	1.00	52.19
ATOM	497	CG	ASN	96	60.245	38.472	33.914	1.00	54.58
ATOM	498	OD1	ASN	96	59.403	38.511	33.011	1.00	54.76
ATOM	499	ND2	ASN	96	59.955	38.068	35.145	1.00	58.18
ATOM	500	C	ASN	96	63.180	40.814	34.334	1.00	49.94
ATOM	501	O	ASN	96	63.360	40.843	35.554	1.00	49.19
ATOM	502	N	PHE	97	64.131	41.099	33.446	1.00	49.96
ATOM	503	CA	PHE	97	65.468	41.506	33.859	1.00	50.35
ATOM	504	CB	PHE	97	66.348	41.733	32.629	1.00	51.62
ATOM	505	CG	PHE	97	67.596	42.526	32.913	1.00	52.11
ATOM	506	CD1	PHE	97	68.588	42.014	33.755	1.00	52.16
ATOM	507	CD2	PHE	97	67.764	43.798	32.364	1.00	52.05
ATOM	508	CE1	PHE	97	69.729	42.754	34.049	1.00	52.31
ATOM	509	CE2	PHE	97	68.903	44.551	32.649	1.00	53.04
ATOM	510	CZ	PHE	97	69.889	44.030	33.494	1.00	52.62
ATOM	511	C	PHE	97	65.349	42.804	34.667	1.00	49.93
ATOM	512	O	PHE	97	66.065	43.017	35.644	1.00	48.91
ATOM	513	N	TYR	98	64.430	43.665	34.251	1.00	49.49
ATOM	514	CA	TYR	98	64.207	44.925	34.938	1.00	50.34
ATOM	515	CB	TYR	98	63.304	45.836	34.108	1.00	50.24
ATOM	516	CG	TYR	98	63.979	46.438	32.905	1.00	50.63
ATOM	517	CD1	TYR	98	64.060	45.738	31.698	1.00	50.98
ATOM	518	CE1	TYR	98	64.684	46.298	30.581	1.00	51.91
ATOM	519	CD2	TYR	98	64.541	47.716	32.970	1.00	50.67
ATOM	520	CE2	TYR	98	65.166	48.287	31.862	1.00	51.48
ATOM	521	CZ	TYR	98	65.233	47.574	30.672	1.00	52.71
ATOM	522	OH	TYR	98	65.841	48.142	29.579	1.00	55.26
ATOM	523	C	TYR	98	63.582	44.736	36.315	1.00	50.43
ATOM	524	O	TYR	98	63.825	45.526	37.227	1.00	50.73
ATOM	525	N	ARG	99	62.779	43.689	36.460	1.00	50.90
ATOM	526	CA	ARG	99	62.100	43.395	37.722	1.00	51.75
ATOM	527	CB	ARG	99	60.866	42.527	37.467	1.00	51.13
ATOM	528	CG	ARG	99	59.750	43.233	36.755	1.00	50.10
ATOM	529	CD	ARG	99	58.846	42.250	36.057	1.00	48.25
ATOM	530	NE	ARG	99	57.638	42.929	35.613	1.00	48.41
ATOM	531	CZ	ARG	99	56.816	42.467	34.680	1.00	47.23
ATOM	532	NH1	ARG	99	57.071	41.317	34.076	1.00	46.58
ATOM	533	NH2	ARG	99	55.731	43.155	34.364	1.00	47.80
ATOM	534	C	ARG	99	62.966	42.678	38.743	1.00	52.77
ATOM	535	O	ARG	99	62.862	42.936	39.938	1.00	53.69
ATOM	536	N	THR	100	63.818	41.777	38.275	1.00	53.25
ATOM	537	CA	THR	100	64.643	40.996	39.178	1.00	53.48
ATOM	538	CB	THR	100	64.378	39.488	38.949	1.00	54.62
ATOM	539	OG1	THR	100	64.950	39.074	37.700	1.00	55.54
ATOM	540	CG2	THR	100	62.877	39.227	38.906	1.00	54.99
ATOM	541	C	THR	100	66.147	41.247	39.108	1.00	53.45
ATOM	542	O	THR	100	66.891	40.801	39.978	1.00	53.68
ATOM	543	N	GLY	101	66.598	41.960	38.085	1.00	53.39
ATOM	544	CA	GLY	101	68.021	42.205	37.955	1.00	52.22
ATOM	545	C	GLY	101	68.701	40.983	37.366	1.00	52.64
ATOM	546	O	GLY	101	69.900	40.998	37.104	1.00	52.67
ATOM	547	N	LYS	102	67.939	39.910	37.169	1.00	53.00
ATOM	548	CA	LYS	102	68.491	38.691	36.584	1.00	53.16
ATOM	549	CB	LYS	102	68.087	37.456	37.391	1.00	54.41
ATOM	550	CG	LYS	102	68.702	37.332	38.780	1.00	57.24
ATOM	551	CD	LYS	102	67.875	38.065	39.841	1.00	59.87
ATOM	552	CE	LYS	102	68.259	37.617	41.252	1.00	60.24
ATOM	553	NZ	LYS	102	68.121	36.137	41.401	1.00	58.40
ATOM	554	C	LYS	102	68.005	38.512	35.141	1.00	52.43
ATOM	555	O	LYS	102	66.799	38.534	34.874	1.00	53.08
ATOM	556	N	LEU	103	68.944	38.352	34.212	1.00	49.93

FIG. 5A-9

ATOM	557	CA	LEU	103	68.591	38.145	32.816	1.00	47.95
ATOM	558	CB	LEU	103	69.572	38.849	31.872	1.00	47.48
ATOM	559	CG	LEU	103	69.268	38.628	30.379	1.00	46.43
ATOM	560	CD1	LEU	103	67.884	39.170	30.057	1.00	43.47
ATOM	561	CD2	LEU	103	70.328	39.296	29.516	1.00	45.43
ATOM	562	C	LEU	103	68.651	36.655	32.583	1.00	46.50
ATOM	563	O	LEU	103	69.702	36.043	32.749	1.00	46.46
ATOM	564	N	HIS	104	67.518	36.073	32.213	1.00	45.24
ATOM	565	CA	HIS	104	67.448	34.636	31.974	1.00	45.51
ATOM	566	CB	HIS	104	66.209	34.030	32.646	1.00	42.06
ATOM	567	CG	HIS	104	66.152	34.257	34.122	1.00	40.65
ATOM	568	CD2	HIS	104	65.349	35.049	34.871	1.00	41.67
ATOM	569	ND1	HIS	104	67.006	33.635	35.005	1.00	39.22
ATOM	570	CE1	HIS	104	66.732	34.030	36.234	1.00	40.25
ATOM	571	NE2	HIS	104	65.730	34.889	36.181	1.00	42.04
ATOM	572	C	HIS	104	67.387	34.339	30.495	1.00	45.93
ATOM	573	O	HIS	104	66.964	35.173	29.696	1.00	47.15
ATOM	574	N	TYR	105	67.823	33.144	30.137	1.00	46.46
ATOM	575	CA	TYR	105	67.784	32.716	28.758	1.00	49.54
ATOM	576	CB	TYR	105	69.145	32.163	28.312	1.00	50.37
ATOM	577	CG	TYR	105	69.079	31.487	26.965	1.00	50.94
ATOM	578	CD1	TYR	105	68.703	32.200	25.815	1.00	50.78
ATOM	579	CE1	TYR	105	68.540	31.556	24.581	1.00	49.31
ATOM	580	CD2	TYR	105	69.302	30.116	26.847	1.00	51.24
ATOM	581	CE2	TYR	105	69.142	29.464	25.617	1.00	51.35
ATOM	582	CZ	TYR	105	68.756	30.188	24.495	1.00	50.78
ATOM	583	OH	TYR	105	68.550	29.519	23.309	1.00	49.37
ATOM	584	C	TYR	105	66.731	31.621	28.647	1.00	51.42
ATOM	585	O	TYR	105	66.864	30.559	29.267	1.00	52.57
ATOM	586	N	PRO	106	65.645	31.877	27.894	1.00	52.80
ATOM	587	CD	PRO	106	65.288	33.109	27.168	1.00	51.74
ATOM	588	CA	PRO	106	64.602	30.849	27.744	1.00	53.64
ATOM	589	CB	PRO	106	63.486	31.583	26.993	1.00	52.49
ATOM	590	CG	PRO	106	64.245	32.619	26.189	1.00	53.36
ATOM	591	C	PRO	106	65.181	29.689	26.940	1.00	54.68
ATOM	592	O	PRO	106	65.553	29.862	25.784	1.00	53.16
ATOM	593	N	ARG	107	65.278	28.523	27.574	1.00	57.13
ATOM	594	CA	ARG	107	65.837	27.326	26.945	1.00	60.03
ATOM	595	CB	ARG	107	65.732	26.131	27.914	1.00	62.31
ATOM	596	CG	ARG	107	67.055	25.745	28.590	1.00	66.91
ATOM	597	CD	ARG	107	67.008	25.787	30.126	1.00	71.04
ATOM	598	NE	ARG	107	66.226	24.698	30.722	1.00	74.01
ATOM	599	CZ	ARG	107	66.076	24.514	32.036	1.00	75.70
ATOM	600	NH1	ARG	107	66.653	25.347	32.895	1.00	76.35
ATOM	601	NH2	ARG	107	65.351	23.500	32.501	1.00	75.94
ATOM	602	C	ARG	107	65.191	26.961	25.595	1.00	60.08
ATOM	603	O	ARG	107	65.866	26.512	24.664	1.00	60.26
ATOM	604	N	TYR	108	63.886	27.170	25.493	1.00	60.19
ATOM	605	CA	TYR	108	63.132	26.841	24.288	1.00	60.87
ATOM	606	CB	TYR	108	61.645	26.766	24.649	1.00	63.05
ATOM	607	CG	TYR	108	61.090	28.039	25.266	1.00	64.08
ATOM	608	CD1	TYR	108	60.712	29.115	24.466	1.00	64.51
ATOM	609	CE1	TYR	108	60.246	30.301	25.029	1.00	65.94
ATOM	610	CD2	TYR	108	60.984	28.179	26.655	1.00	65.34
ATOM	611	CE2	TYR	108	60.518	29.362	27.234	1.00	65.08
ATOM	612	CZ	TYR	108	60.153	30.420	26.413	1.00	66.49
ATOM	613	OH	TYR	108	59.709	31.601	26.971	1.00	67.59
ATOM	614	C	TYR	108	63.328	27.803	23.120	1.00	60.24
ATOM	615	O	TYR	108	62.895	27.528	22.001	1.00	61.06
ATOM	616	N	GLU	109	63.987	28.926	23.367	1.00	58.88
ATOM	617	CA	GLU	109	64.181	29.909	22.311	1.00	56.99
ATOM	618	CB	GLU	109	64.149	31.316	22.910	1.00	58.61

FIG. 5A-10

ATOM	619	CG	GLU	109	63.317	32.280	22.116	1.00	62.37
ATOM	620	CD	GLU	109	61.839	31.930	22.165	1.00	65.36
ATOM	621	OE1	GLU	109	61.472	30.775	21.843	1.00	67.39
ATOM	622	OE2	GLU	109	61.038	32.815	22.526	1.00	67.05
ATOM	623	C	GLU	109	65.462	29.733	21.494	1.00	54.46
ATOM	624	O	GLU	109	66.478	29.238	21.991	1.00	53.13
ATOM	625	N	CYS	110	65.398	30.136	20.230	1.00	51.50
ATOM	626	CA	CYS	110	66.557	30.064	19.360	1.00	48.47
ATOM	627	CB	CYS	110	66.175	30.361	17.914	1.00	47.36
ATOM	628	SG	CYS	110	67.624	30.471	16.825	1.00	42.88
ATOM	629	C	CYS	110	67.566	31.103	19.837	1.00	48.43
ATOM	630	O	CYS	110	67.260	32.291	19.936	1.00	47.85
ATOM	631	N	ILE	111	68.774	30.643	20.128	1.00	48.70
ATOM	632	CA	ILE	111	69.835	31.510	20.611	1.00	48.06
ATOM	633	CB	ILE	111	71.160	30.701	20.739	1.00	48.99
ATOM	634	CG2	ILE	111	71.829	30.565	19.364	1.00	48.17
ATOM	635	CG1	ILE	111	72.088	31.357	21.763	1.00	49.40
ATOM	636	CD1	ILE	111	72.594	32.724	21.357	1.00	52.11
ATOM	637	C	ILE	111	70.032	32.710	19.682	1.00	47.78
ATOM	638	O	ILE	111	70.345	33.813	20.133	1.00	48.92
ATOM	639	N	SER	112	69.829	32.494	18.386	1.00	47.11
ATOM	640	CA	SER	112	70.005	33.542	17.389	1.00	46.67
ATOM	641	CB	SER	112	69.990	32.928	15.989	1.00	47.65
ATOM	642	OG	SER	112	70.492	33.839	15.030	1.00	50.07
ATOM	643	C	SER	112	68.924	34.611	17.501	1.00	46.61
ATOM	644	O	SER	112	69.214	35.816	17.467	1.00	45.54
ATOM	645	N	ALA	113	67.676	34.168	17.626	1.00	44.95
ATOM	646	CA	ALA	113	66.559	35.094	17.768	1.00	43.86
ATOM	647	CB	ALA	113	65.240	34.335	17.747	1.00	42.09
ATOM	648	C	ALA	113	66.725	35.831	19.096	1.00	42.94
ATOM	649	O	ALA	113	66.416	37.016	19.212	1.00	42.65
ATOM	650	N	TYR	114	67.230	35.128	20.099	1.00	42.34
ATOM	651	CA	TYR	114	67.422	35.736	21.401	1.00	43.06
ATOM	652	CB	TYR	114	67.881	34.673	22.392	1.00	38.95
ATOM	653	CG	TYR	114	68.069	35.167	23.810	1.00	38.35
ATOM	654	CD1	TYR	114	66.974	35.424	24.636	1.00	37.02
ATOM	655	CE1	TYR	114	67.156	35.820	25.966	1.00	37.54
ATOM	656	CD2	TYR	114	69.351	35.324	24.345	1.00	38.50
ATOM	657	CE2	TYR	114	69.543	35.711	25.664	1.00	38.92
ATOM	658	CZ	TYR	114	68.447	35.958	26.470	1.00	38.80
ATOM	659	OH	TYR	114	68.650	36.339	27.776	1.00	38.92
ATOM	660	C	TYR	114	68.431	36.902	21.352	1.00	44.66
ATOM	661	O	TYR	114	68.182	37.970	21.918	1.00	43.33
ATOM	662	N	ASP	115	69.556	36.696	20.669	1.00	46.33
ATOM	663	CA	ASP	115	70.594	37.723	20.558	1.00	48.49
ATOM	664	CB	ASP	115	71.843	37.141	19.901	1.00	50.76
ATOM	665	CG	ASP	115	72.665	36.301	20.857	1.00	53.02
ATOM	666	OD1	ASP	115	73.495	35.494	20.385	1.00	55.36
ATOM	667	OD2	ASP	115	72.489	36.457	22.084	1.00	55.55
ATOM	668	C	ASP	115	70.143	38.951	19.784	1.00	49.03
ATOM	669	O	ASP	115	70.439	40.080	20.179	1.00	48.33
ATOM	670	N	ASP	116	69.444	38.731	18.674	1.00	49.96
ATOM	671	CA	ASP	116	68.940	39.832	17.866	1.00	51.54
ATOM	672	CB	ASP	116	68.097	39.308	16.704	1.00	53.49
ATOM	673	CG	ASP	116	68.924	38.595	15.647	1.00	57.74
ATOM	674	OD1	ASP	116	68.318	38.034	14.701	1.00	60.44
ATOM	675	OD2	ASP	116	70.175	38.596	15.753	1.00	58.73
ATOM	676	C	ASP	116	68.073	40.721	18.753	1.00	52.08
ATOM	677	O	ASP	116	68.228	41.944	18.771	1.00	52.26
ATOM	678	N	GLU	117	67.162	40.095	19.494	1.00	51.61
ATOM	679	CA	GLU	117	66.280	40.829	20.378	1.00	51.66
ATOM	680	CB	GLU	117	65.245	39.891	20.992	1.00	53.98

FIG. 5A-11

ATOM	681	CG	GLU	117	64.287	39.252	19.977	1.00	57.64
ATOM	682	CD	GLU	117	63.516	40.270	19.131	1.00	59.95
ATOM	683	OE1	GLU	117	62.920	41.216	19.697	1.00	60.60
ATOM	684	OE2	GLU	117	63.498	40.112	17.891	1.00	61.99
ATOM	685	C	GLU	117	67.055	41.555	21.471	1.00	50.09
ATOM	686	O	GLU	117	66.830	42.738	21.702	1.00	50.17
ATOM	687	N	LEU	118	67.966	40.861	22.142	1.00	48.64
ATOM	688	CA	LEU	118	68.755	41.502	23.191	1.00	48.91
ATOM	689	CB	LEU	118	69.869	40.570	23.696	1.00	48.08
ATOM	690	CG	LEU	118	69.530	39.473	24.711	1.00	48.83
ATOM	691	CD1	LEU	118	70.817	38.950	25.352	1.00	46.67
ATOM	692	CD2	LEU	118	68.609	40.038	25.779	1.00	48.84
ATOM	693	C	LEU	118	69.395	42.788	22.663	1.00	49.21
ATOM	694	O	LEU	118	69.328	43.844	23.306	1.00	48.05
ATOM	695	N	ALA	119	70.011	42.670	21.486	1.00	49.50
ATOM	696	CA	ALA	119	70.700	43.771	20.823	1.00	49.04
ATOM	697	CB	ALA	119	71.226	43.315	19.475	1.00	49.03
ATOM	698	C	ALA	119	69.808	44.986	20.647	1.00	48.11
ATOM	699	O	ALA	119	70.239	46.115	20.858	1.00	49.00
ATOM	700	N	PHE	120	68.561	44.756	20.265	1.00	47.39
ATOM	701	CA	PHE	120	67.622	45.853	20.076	1.00	46.90
ATOM	702	CB	PHE	120	66.301	45.308	19.532	1.00	46.52
ATOM	703	CG	PHE	120	65.176	46.300	19.566	1.00	49.14
ATOM	704	CD1	PHE	120	65.195	47.427	18.746	1.00	50.85
ATOM	705	CD2	PHE	120	64.093	46.109	20.416	1.00	48.82
ATOM	706	CE1	PHE	120	64.146	48.348	18.773	1.00	50.67
ATOM	707	CE2	PHE	120	63.041	47.020	20.449	1.00	50.34
ATOM	708	CZ	PHE	120	63.066	48.141	19.627	1.00	50.72
ATOM	709	C	PHE	120	67.363	46.638	21.369	1.00	46.48
ATOM	710	O	PHE	120	67.219	47.859	21.339	1.00	46.05
ATOM	711	N	TYR	121	67.315	45.936	22.497	1.00	46.01
ATOM	712	CA	TYR	121	67.039	46.562	23.787	1.00	47.31
ATOM	713	CB	TYR	121	66.360	45.553	24.726	1.00	46.25
ATOM	714	CG	TYR	121	65.034	45.049	24.206	1.00	45.13
ATOM	715	CD1	TYR	121	63.913	45.877	24.189	1.00	43.89
ATOM	716	CE1	TYR	121	62.699	45.431	23.680	1.00	44.00
ATOM	717	CD2	TYR	121	64.905	43.753	23.699	1.00	44.51
ATOM	718	CE2	TYR	121	63.686	43.293	23.184	1.00	43.46
ATOM	719	CZ	TYR	121	62.591	44.139	23.178	1.00	42.85
ATOM	720	OH	TYR	121	61.385	43.714	22.667	1.00	42.00
ATOM	721	C	TYR	121	68.266	47.136	24.469	1.00	48.82
ATOM	722	O	TYR	121	68.179	47.597	25.602	1.00	48.46
ATOM	723	N	GLY	122	69.407	47.101	23.781	1.00	51.14
ATOM	724	CA	GLY	122	70.636	47.631	24.346	1.00	52.82
ATOM	725	C	GLY	122	71.112	46.867	25.569	1.00	55.54
ATOM	726	O	GLY	122	71.700	47.439	26.490	1.00	55.79
ATOM	727	N	ILE	123	70.851	45.566	25.584	1.00	57.10
ATOM	728	CA	ILE	123	71.264	44.730	26.699	1.00	58.82
ATOM	729	CB	ILE	123	70.058	43.980	27.298	1.00	59.22
ATOM	730	CG2	ILE	123	70.517	43.011	28.376	1.00	57.73
ATOM	731	CG1	ILE	123	69.065	44.990	27.875	1.00	58.76
ATOM	732	CD1	ILE	123	67.754	44.379	28.276	1.00	59.03
ATOM	733	C	ILE	123	72.311	43.738	26.212	1.00	60.06
ATOM	734	O	ILE	123	72.124	43.056	25.203	1.00	60.05
ATOM	735	N	LEU	124	73.418	43.673	26.938	1.00	62.02
ATOM	736	CA	LEU	124	74.516	42.792	26.584	1.00	63.91
ATOM	737	CB	LEU	124	75.827	43.406	27.087	1.00	63.78
ATOM	738	CG	LEU	124	76.890	43.787	26.044	1.00	64.64
ATOM	739	CD1	LEU	124	76.247	44.265	24.748	1.00	63.33
ATOM	740	CD2	LEU	124	77.790	44.861	26.638	1.00	63.81
ATOM	741	C	LEU	124	74.343	41.376	27.134	1.00	65.23
ATOM	742	O	LEU	124	74.057	41.190	28.318	1.00	64.84

FIG. 5A-12

ATOM	743	N	PRO	125	74.512	40.358	26.270	1.00	66.82
ATOM	744	CD	PRO	125	74.860	40.475	24.843	1.00	67.66
ATOM	745	CA	PRO	125	74.380	38.948	26.654	1.00	68.14
ATOM	746	CB	PRO	125	74.816	38.203	25.395	1.00	67.95
ATOM	747	CG	PRO	125	74.418	39.133	24.301	1.00	68.25
ATOM	748	C	PRO	125	75.298	38.656	27.827	1.00	69.27
ATOM	749	O	PRO	125	75.085	37.720	28.594	1.00	70.01
ATOM	750	N	GLU	126	76.331	39.474	27.950	1.00	70.68
ATOM	751	CA	GLU	126	77.291	39.330	29.023	1.00	71.93
ATOM	752	CB	GLU	126	78.382	40.392	28.862	1.00	73.67
ATOM	753	CG	GLU	126	79.182	40.660	30.114	1.00	77.01
ATOM	754	CD	GLU	126	78.952	42.061	30.646	1.00	79.93
ATOM	755	OE1	GLU	126	79.379	42.347	31.789	1.00	80.66
ATOM	756	OE2	GLU	126	78.347	42.879	29.913	1.00	81.43
ATOM	757	C	GLU	126	76.617	39.433	30.398	1.00	71.15
ATOM	758	O	GLU	126	77.097	38.857	31.377	1.00	71.49
ATOM	759	N	ILE	127	75.497	40.147	30.473	1.00	70.25
ATOM	760	CA	ILE	127	74.804	40.296	31.750	1.00	69.58
ATOM	761	CB	ILE	127	73.982	41.601	31.824	1.00	69.69
ATOM	762	CG2	ILE	127	74.780	42.767	31.260	1.00	69.20
ATOM	763	CG1	ILE	127	72.680	41.434	31.053	1.00	70.46
ATOM	764	CD1	ILE	127	71.706	42.533	31.315	1.00	72.33
ATOM	765	C	ILE	127	73.860	39.136	32.081	1.00	68.78
ATOM	766	O	ILE	127	73.161	39.175	33.093	1.00	67.72
ATOM	767	N	ILE	128	73.822	38.116	31.228	1.00	67.98
ATOM	768	CA	ILE	128	72.972	36.963	31.491	1.00	67.62
ATOM	769	CB	ILE	128	73.127	35.881	30.383	1.00	67.49
ATOM	770	CG2	ILE	128	72.585	34.537	30.858	1.00	66.99
ATOM	771	CG1	ILE	128	72.381	36.331	29.124	1.00	66.94
ATOM	772	CD1	ILE	128	72.450	35.348	27.980	1.00	65.31
ATOM	773	C	ILE	128	73.393	36.400	32.850	1.00	67.43
ATOM	774	O	ILE	128	74.581	36.390	33.178	1.00	67.78
ATOM	775	N	GLY	129	72.417	35.956	33.641	1.00	66.66
ATOM	776	CA	GLY	129	72.711	35.420	34.959	1.00	66.32
ATOM	777	C	GLY	129	73.511	34.128	34.964	1.00	66.62
ATOM	778	O	GLY	129	73.537	33.389	33.976	1.00	65.58
ATOM	779	N	ASP	130	74.166	33.851	36.087	1.00	66.68
ATOM	780	CA	ASP	130	74.966	32.640	36.217	1.00	67.29
ATOM	781	CB	ASP	130	75.779	32.675	37.516	1.00	69.53
ATOM	782	CG	ASP	130	77.076	33.460	37.365	1.00	72.54
ATOM	783	OD1	ASP	130	77.946	33.008	36.579	1.00	73.65
ATOM	784	OD2	ASP	130	77.223	34.526	38.020	1.00	73.11
ATOM	785	C	ASP	130	74.085	31.402	36.176	1.00	65.80
ATOM	786	O	ASP	130	74.557	30.289	35.902	1.00	65.98
ATOM	787	N	CYS	131	72.797	31.603	36.434	1.00	63.80
ATOM	788	CA	CYS	131	71.845	30.505	36.418	1.00	61.72
ATOM	789	CB	CYS	131	70.556	30.923	37.134	1.00	60.65
ATOM	790	SG	CYS	131	69.856	32.505	36.581	1.00	58.77
ATOM	791	C	CYS	131	71.545	30.067	34.990	1.00	60.92
ATOM	792	O	CYS	131	71.136	28.934	34.757	1.00	60.31
ATOM	793	N	CYS	132	71.766	30.964	34.034	1.00	61.16
ATOM	794	CA	CYS	132	71.503	30.661	32.631	1.00	62.22
ATOM	795	CB	CYS	132	70.426	31.604	32.078	1.00	60.61
ATOM	796	SG	CYS	132	68.737	31.289	32.637	1.00	54.79
ATOM	797	C	CYS	132	72.724	30.740	31.719	1.00	64.94
ATOM	798	O	CYS	132	72.675	30.253	30.585	1.00	64.43
ATOM	799	N	TYR	133	73.811	31.345	32.199	1.00	68.20
ATOM	800	CA	TYR	133	75.005	31.499	31.370	1.00	72.00
ATOM	801	CB	TYR	133	76.116	32.231	32.133	1.00	75.99
ATOM	802	CG	TYR	133	76.759	33.344	31.316	1.00	80.69
ATOM	803	CD1	TYR	133	77.188	34.531	31.924	1.00	82.62
ATOM	804	CE1	TYR	133	77.731	35.583	31.166	1.00	84.61

FIG. 5A-13

ATOM	805	CD2	TYR	133	76.898	33.228	29.924	1.00	82.57
ATOM	806	CE2	TYR	133	77.442	34.269	29.157	1.00	84.20
ATOM	807	CZ	TYR	133	77.853	35.445	29.783	1.00	85.25
ATOM	808	OH	TYR	133	78.379	36.482	29.036	1.00	85.38
ATOM	809	C	TYR	133	75.532	30.188	30.814	1.00	72.30
ATOM	810	O	TYR	133	75.787	30.081	29.619	1.00	71.80
ATOM	811	N	GLU	134	75.698	29.194	31.676	1.00	73.49
ATOM	812	CA	GLU	134	76.179	27.894	31.232	1.00	74.86
ATOM	813	CB	GLU	134	76.037	26.862	32.357	1.00	77.54
ATOM	814	CG	GLU	134	76.790	27.196	33.643	1.00	81.48
ATOM	815	CD	GLU	134	78.293	26.972	33.533	1.00	83.66
ATOM	816	OE1	GLU	134	78.991	27.143	34.560	1.00	84.67
ATOM	817	OE2	GLU	134	78.773	26.629	32.428	1.00	84.35
ATOM	818	C	GLU	134	75.347	27.456	30.031	1.00	74.22
ATOM	819	O	GLU	134	75.888	27.115	28.984	1.00	73.58
ATOM	820	N	GLU	135	74.024	27.486	30.189	1.00	74.27
ATOM	821	CA	GLU	135	73.103	27.081	29.128	1.00	74.37
ATOM	822	CB	GLU	135	71.661	27.099	29.644	1.00	76.24
ATOM	823	CG	GLU	135	70.907	25.793	29.414	1.00	78.85
ATOM	824	CD	GLU	135	70.728	25.459	27.942	1.00	80.42
ATOM	825	OE1	GLU	135	70.346	24.309	27.626	1.00	80.72
ATOM	826	OE2	GLU	135	70.962	26.350	27.100	1.00	81.45
ATOM	827	C	GLU	135	73.209	27.955	27.880	1.00	73.40
ATOM	828	O	GLU	135	73.168	27.452	26.757	1.00	72.98
ATOM	829	N	TYR	136	73.340	29.262	28.079	1.00	71.95
ATOM	830	CA	TYR	136	73.459	30.192	26.967	1.00	71.34
ATOM	831	CB	TYR	136	73.504	31.627	27.495	1.00	69.80
ATOM	832	CG	TYR	136	73.795	32.663	26.437	1.00	68.35
ATOM	833	CD1	TYR	136	74.993	33.374	26.442	1.00	68.86
ATOM	834	CE1	TYR	136	75.278	34.317	25.457	1.00	68.45
ATOM	835	CD2	TYR	136	72.884	32.922	25.422	1.00	68.19
ATOM	836	CE2	TYR	136	73.157	33.861	24.433	1.00	68.81
ATOM	837	CZ	TYR	136	74.357	34.554	24.453	1.00	68.70
ATOM	838	OH	TYR	136	74.638	35.463	23.455	1.00	68.27
ATOM	839	C	TYR	136	74.697	29.914	26.118	1.00	71.99
ATOM	840	O	TYR	136	74.598	29.745	24.902	1.00	71.15
ATOM	841	N	LYS	137	75.857	29.856	26.765	1.00	73.64
ATOM	842	CA	LYS	137	77.118	29.619	26.068	1.00	75.77
ATOM	843	CB	LYS	137	78.290	29.711	27.050	1.00	77.33
ATOM	844	CG	LYS	137	78.610	31.149	27.469	1.00	79.51
ATOM	845	CD	LYS	137	79.617	31.224	28.619	1.00	81.70
ATOM	846	CE	LYS	137	81.029	30.811	28.200	1.00	82.86
ATOM	847	NZ	LYS	137	81.155	29.362	27.868	1.00	84.14
ATOM	848	C	LYS	137	77.181	28.309	25.294	1.00	76.22
ATOM	849	O	LYS	137	77.830	28.239	24.248	1.00	76.42
ATOM	850	N	ASP	138	76.510	27.274	25.794	1.00	76.57
ATOM	851	CA	ASP	138	76.505	25.989	25.102	1.00	77.38
ATOM	852	CB	ASP	138	75.917	24.886	25.988	1.00	78.23
ATOM	853	CG	ASP	138	76.981	24.154	26.790	1.00	79.67
ATOM	854	OD1	ASP	138	78.049	23.849	26.209	1.00	80.18
ATOM	855	OD2	ASP	138	76.747	23.871	27.989	1.00	80.17
ATOM	856	C	ASP	138	75.718	26.060	23.804	1.00	77.69
ATOM	857	O	ASP	138	76.169	25.570	22.773	1.00	77.72
ATOM	858	N	ARG	139	74.541	26.675	23.862	1.00	78.49
ATOM	859	CA	ARG	139	73.685	26.813	22.692	1.00	79.17
ATOM	860	CB	ARG	139	72.321	27.363	23.100	1.00	79.46
ATOM	861	CG	ARG	139	71.507	26.415	23.957	1.00	80.04
ATOM	862	CD	ARG	139	70.838	25.326	23.131	1.00	80.71
ATOM	863	NE	ARG	139	69.384	25.488	23.116	1.00	82.21
ATOM	864	CZ	ARG	139	68.723	26.341	22.336	1.00	82.42
ATOM	865	NH1	ARG	139	69.381	27.120	21.485	1.00	84.27
ATOM	866	NH2	ARG	139	67.401	26.427	22.413	1.00	81.32

FIG. 5A-14

ATOM	867	C	ARG	139	74.313	27.728	21.656	1.00	79.94
ATOM	868	O	ARG	139	74.060	27.588	20.461	1.00	79.75
ATOM	869	N	LYS	140	75.130	28.667	22.116	1.00	81.05
ATOM	870	CA	LYS	140	75.790	29.593	21.211	1.00	83.03
ATOM	871	CB	LYS	140	76.329	30.794	21.985	1.00	83.00
ATOM	872	CG	LYS	140	76.808	31.911	21.086	1.00	83.12
ATOM	873	CD	LYS	140	77.093	33.172	21.866	1.00	83.96
ATOM	874	CE	LYS	140	77.233	34.343	20.917	1.00	84.30
ATOM	875	NZ	LYS	140	76.038	34.419	20.024	1.00	84.69
ATOM	876	C	LYS	140	76.935	28.884	20.497	1.00	84.77
ATOM	877	O	LYS	140	77.261	29.188	19.349	1.00	84.82
ATOM	878	N	ARG	141	77.542	27.935	21.197	1.00	86.87
ATOM	879	CA	ARG	141	78.648	27.156	20.666	1.00	88.75
ATOM	880	CB	ARG	141	79.261	26.335	21.798	1.00	89.45
ATOM	881	CG	ARG	141	80.468	25.498	21.432	1.00	90.78
ATOM	882	CD	ARG	141	80.978	24.812	22.683	1.00	92.49
ATOM	883	NE	ARG	141	80.908	25.727	23.824	1.00	94.11
ATOM	884	CZ	ARG	141	81.376	25.462	25.040	1.00	94.75
ATOM	885	NH1	ARG	141	81.961	24.297	25.294	1.00	95.31
ATOM	886	NH2	ARG	141	81.258	26.366	26.006	1.00	94.74
ATOM	887	C	ARG	141	78.131	26.233	19.565	1.00	89.89
ATOM	888	O	ARG	141	78.689	26.175	18.467	1.00	90.05
ATOM	889	N	GLU	142	77.053	25.518	19.867	1.00	90.80
ATOM	890	CA	GLU	142	76.458	24.596	18.912	1.00	92.46
ATOM	891	CB	GLU	142	75.271	23.865	19.545	1.00	92.98
ATOM	892	CG	GLU	142	75.456	23.498	21.012	1.00	94.59
ATOM	893	CD	GLU	142	76.672	22.614	21.269	1.00	96.09
ATOM	894	OE1	GLU	142	76.982	22.371	22.458	1.00	96.62
ATOM	895	OE2	GLU	142	77.314	22.160	20.291	1.00	96.72
ATOM	896	C	GLU	142	75.970	25.361	17.692	1.00	93.22
ATOM	897	O	GLU	142	75.843	24.799	16.607	1.00	94.11
ATOM	898	N	ASN	143	75.704	26.650	17.877	1.00	93.90
ATOM	899	CA	ASN	143	75.197	27.495	16.802	1.00	94.44
ATOM	900	CB	ASN	143	74.614	28.785	17.387	1.00	94.93
ATOM	901	CG	ASN	143	73.728	29.524	16.403	1.00	95.31
ATOM	902	OD1	ASN	143	72.651	29.043	16.040	1.00	96.12
ATOM	903	ND2	ASN	143	74.177	30.695	15.961	1.00	94.75
ATOM	904	C	ASN	143	76.237	27.848	15.743	1.00	94.72
ATOM	905	O	ASN	143	75.991	27.689	14.544	1.00	94.36
ATOM	906	N	LEU	144	77.394	28.335	16.184	1.00	95.33
ATOM	907	CA	LEU	144	78.454	28.721	15.261	1.00	96.13
ATOM	908	CB	LEU	144	79.648	29.309	16.031	1.00	95.43
ATOM	909	CG	LEU	144	80.381	28.497	17.108	1.00	95.18
ATOM	910	CD1	LEU	144	81.121	27.314	16.492	1.00	94.43
ATOM	911	CD2	LEU	144	81.365	29.412	17.828	1.00	94.66
ATOM	912	C	LEU	144	78.919	27.571	14.370	1.00	96.94
ATOM	913	O	LEU	144	79.336	27.794	13.233	1.00	97.03
ATOM	914	N	GLU	145	78.831	26.343	14.876	1.00	97.84
ATOM	915	CA	GLU	145	79.264	25.174	14.113	1.00	98.91
ATOM	916	CB	GLU	145	79.479	23.982	15.052	1.00	98.78
ATOM	917	CG	GLU	145	78.215	23.204	15.376	1.00	99.24
ATOM	918	CD	GLU	145	78.435	22.157	16.452	1.00	100.00
ATOM	919	OE1	GLU	145	77.545	21.297	16.636	1.00	100.00
ATOM	920	OE2	GLU	145	79.492	22.201	17.120	1.00	100.00
ATOM	921	C	GLU	145	78.281	24.785	13.002	1.00	99.41
ATOM	922	O	GLU	145	77.242	25.472	12.846	1.00	99.68
ATOM	923	OXT	GLU	145	78.572	23.790	12.296	1.00	99.81
ATOM	1905	ZN+2	ZN2	300	68.380	31.824	34.750	1.00	60.11
ATOM	924	CB	GLN	1038	28.408	33.647	48.349	1.00	85.88
ATOM	925	CG	GLN	1038	29.202	34.524	49.328	1.00	87.19
ATOM	926	CD	GLN	1038	29.257	33.934	50.727	1.00	87.98
ATOM	927	OE1	GLN	1038	28.221	33.809	51.416	1.00	88.62

FIG. 5A-15

ATOM	928	NE2	GLN	1038	30.470	33.560	51.164	1.00	88.26
ATOM	929	C	GLN	1038	30.058	33.915	46.469	1.00	84.68
ATOM	930	O	GLN	1038	30.990	34.282	47.217	1.00	84.19
ATOM	931	N	GLN	1038	27.637	33.319	46.002	1.00	84.63
ATOM	932	CA	GLN	1038	28.577	34.090	46.883	1.00	85.75
ATOM	933	N	ASP	1039	30.287	33.353	45.291	1.00	83.42
ATOM	934	CA	ASP	1039	31.656	33.160	44.862	1.00	81.48
ATOM	935	CB	ASP	1039	31.817	31.780	44.225	1.00	82.36
ATOM	936	CG	ASP	1039	33.214	31.209	44.423	1.00	82.90
ATOM	937	OD1	ASP	1039	34.090	31.934	44.949	1.00	82.87
ATOM	938	OD2	ASP	1039	33.436	30.034	44.058	1.00	83.34
ATOM	939	C	ASP	1039	32.084	34.250	43.884	1.00	80.14
ATOM	940	O	ASP	1039	31.457	34.446	42.838	1.00	80.54
ATOM	941	N	GLU	1040	33.146	34.967	44.245	1.00	77.44
ATOM	942	CA	GLU	1040	33.698	36.036	43.411	1.00	74.97
ATOM	943	CB	GLU	1040	34.483	37.047	44.255	1.00	76.16
ATOM	944	CG	GLU	1040	33.725	38.256	44.754	1.00	77.95
ATOM	945	CD	GLU	1040	34.588	39.118	45.671	1.00	79.88
ATOM	946	OE1	GLU	1040	34.137	40.213	46.077	1.00	80.83
ATOM	947	OE2	GLU	1040	35.721	38.693	45.995	1.00	80.59
ATOM	948	C	GLU	1040	34.662	35.483	42.374	1.00	71.97
ATOM	949	O	GLU	1040	35.345	34.481	42.598	1.00	70.86
ATOM	950	N	LEU	1041	34.716	36.160	41.238	1.00	68.20
ATOM	951	CA	LEU	1041	35.632	35.786	40.184	1.00	64.88
ATOM	952	CB	LEU	1041	34.899	35.677	38.852	1.00	63.27
ATOM	953	CG	LEU	1041	35.713	35.001	37.755	1.00	62.61
ATOM	954	CD1	LEU	1041	36.208	33.639	38.232	1.00	61.42
ATOM	955	CD2	LEU	1041	34.853	34.854	36.525	1.00	61.86
ATOM	956	C	LEU	1041	36.608	36.951	40.172	1.00	63.13
ATOM	957	O	LEU	1041	36.317	38.003	39.599	1.00	63.03
ATOM	958	N	ILE	1042	37.749	36.784	40.839	1.00	61.01
ATOM	959	CA	ILE	1042	38.724	37.865	40.897	1.00	58.63
ATOM	960	CB	ILE	1042	39.527	37.880	42.233	1.00	59.41
ATOM	961	CG2	ILE	1042	38.585	37.789	43.423	1.00	59.89
ATOM	962	CG1	ILE	1042	40.487	36.708	42.299	1.00	60.06
ATOM	963	CD1	ILE	1042	41.423	36.818	43.488	1.00	61.44
ATOM	964	C	ILE	1042	39.700	37.829	39.732	1.00	56.16
ATOM	965	O	ILE	1042	39.967	36.775	39.144	1.00	55.10
ATOM	966	N	VAL	1043	40.209	39.013	39.406	1.00	52.49
ATOM	967	CA	VAL	1043	41.148	39.196	38.322	1.00	49.12
ATOM	968	CB	VAL	1043	40.715	40.359	37.416	1.00	48.58
ATOM	969	CG1	VAL	1043	41.867	40.763	36.488	1.00	46.91
ATOM	970	CG2	VAL	1043	39.497	39.945	36.622	1.00	45.49
ATOM	971	C	VAL	1043	42.545	39.474	38.842	1.00	47.65
ATOM	972	O	VAL	1043	42.766	40.393	39.633	1.00	47.29
ATOM	973	N	LEU	1044	43.487	38.656	38.399	1.00	46.24
ATOM	974	CA	LEU	1044	44.875	38.810	38.795	1.00	45.12
ATOM	975	CB	LEU	1044	45.428	37.467	39.278	1.00	45.84
ATOM	976	CG	LEU	1044	44.712	36.907	40.512	1.00	48.25
ATOM	977	CD1	LEU	1044	45.202	35.495	40.815	1.00	49.41
ATOM	978	CD2	LEU	1044	44.957	37.839	41.702	1.00	47.73
ATOM	979	C	LEU	1044	45.640	39.296	37.571	1.00	43.51
ATOM	980	O	LEU	1044	45.952	38.511	36.676	1.00	43.59
ATOM	981	N	ASN	1045	45.895	40.598	37.509	1.00	41.34
ATOM	982	CA	ASN	1045	46.632	41.167	36.390	1.00	40.32
ATOM	983	CB	ASN	1045	46.356	42.671	36.242	1.00	41.67
ATOM	984	CG	ASN	1045	47.075	43.275	35.040	1.00	44.28
ATOM	985	OD1	ASN	1045	48.158	42.819	34.655	1.00	43.67
ATOM	986	ND2	ASN	1045	46.480	44.308	34.443	1.00	44.35
ATOM	987	C	ASN	1045	48.116	40.965	36.672	1.00	38.47
ATOM	988	O	ASN	1045	48.699	41.650	37.519	1.00	37.95
ATOM	989	N	VAL	1046	48.737	40.029	35.974	1.00	35.67

FIG. 5A-16

ATOM	990	CA	VAL	1046	50.150	39.800	36.201	1.00	33.57
ATOM	991	CB	VAL	1046	50.451	38.311	36.420	1.00	34.19
ATOM	992	CG1	VAL	1046	51.951	38.120	36.672	1.00	32.26
ATOM	993	CG2	VAL	1046	49.587	37.761	37.562	1.00	31.05
ATOM	994	C	VAL	1046	50.937	40.271	34.996	1.00	33.72
ATOM	995	O	VAL	1046	50.856	39.660	33.913	1.00	31.36
ATOM	996	N	SER	1047	51.667	41.376	35.171	1.00	34.10
ATOM	997	CA	SER	1047	52.508	41.905	34.098	1.00	34.26
ATOM	998	CB	SER	1047	53.586	40.865	33.760	1.00	34.87
ATOM	999	OG	SER	1047	54.461	41.314	32.741	1.00	38.04
ATOM	1000	C	SER	1047	51.690	42.222	32.852	1.00	34.18
ATOM	1001	O	SER	1047	52.223	42.283	31.752	1.00	33.22
ATOM	1002	N	GLY	1048	50.389	42.419	33.027	1.00	34.89
ATOM	1003	CA	GLY	1048	49.541	42.707	31.889	1.00	35.40
ATOM	1004	C	GLY	1048	48.695	41.505	31.521	1.00	36.95
ATOM	1005	O	GLY	1048	47.646	41.675	30.899	1.00	37.80
ATOM	1006	N	ARG	1049	49.151	40.296	31.874	1.00	37.94
ATOM	1007	CA	ARG	1049	48.386	39.078	31.595	1.00	40.93
ATOM	1008	CB	ARG	1049	49.257	37.827	31.694	1.00	44.79
ATOM	1009	CG	ARG	1049	50.211	37.652	30.555	1.00	51.65
ATOM	1010	CD	ARG	1049	49.488	37.382	29.248	1.00	55.25
ATOM	1011	NE	ARG	1049	50.261	37.926	28.141	1.00	57.21
ATOM	1012	CZ	ARG	1049	50.270	39.211	27.797	1.00	59.24
ATOM	1013	NH1	ARG	1049	49.531	40.088	28.467	1.00	57.60
ATOM	1014	NH2	ARG	1049	51.043	39.624	26.794	1.00	60.83
ATOM	1015	C	ARG	1049	47.284	38.958	32.633	1.00	41.42
ATOM	1016	O	ARG	1049	47.561	38.950	33.845	1.00	39.63
ATOM	1017	N	ARG	1050	46.040	38.870	32.176	1.00	40.84
ATOM	1018	CA	ARG	1050	44.950	38.738	33.123	1.00	44.16
ATOM	1019	CB	ARG	1050	43.744	39.570	32.677	1.00	47.43
ATOM	1020	CG	ARG	1050	44.061	41.076	32.722	1.00	55.30
ATOM	1021	CD	ARG	1050	42.814	41.956	32.798	1.00	60.47
ATOM	1022	NE	ARG	1050	43.146	43.365	33.027	1.00	64.97
ATOM	1023	CZ	ARG	1050	43.885	44.104	32.201	1.00	68.43
ATOM	1024	NH1	ARG	1050	44.377	43.571	31.088	1.00	70.13
ATOM	1025	NH2	ARG	1050	44.129	45.381	32.478	1.00	69.08
ATOM	1026	C	ARG	1050	44.562	37.289	33.363	1.00	42.77
ATOM	1027	O	ARG	1050	44.342	36.524	32.425	1.00	43.58
ATOM	1028	N	PHE	1051	44.528	36.922	34.642	1.00	41.01
ATOM	1029	CA	PHE	1051	44.156	35.581	35.083	1.00	40.35
ATOM	1030	CB	PHE	1051	45.270	34.971	35.934	1.00	39.21
ATOM	1031	CG	PHE	1051	46.524	34.701	35.179	1.00	39.30
ATOM	1032	CD1	PHE	1051	46.719	33.472	34.553	1.00	39.13
ATOM	1033	CD2	PHE	1051	47.515	35.678	35.079	1.00	40.84
ATOM	1034	CE1	PHE	1051	47.887	33.207	33.835	1.00	38.86
ATOM	1035	CE2	PHE	1051	48.691	35.433	34.364	1.00	41.02
ATOM	1036	CZ	PHE	1051	48.878	34.185	33.738	1.00	40.47
ATOM	1037	C	PHE	1051	42.920	35.737	35.943	1.00	39.80
ATOM	1038	O	PHE	1051	42.789	36.717	36.665	1.00	38.12
ATOM	1039	N	GLN	1052	42.007	34.787	35.860	1.00	41.63
ATOM	1040	CA	GLN	1052	40.810	34.851	36.675	1.00	43.97
ATOM	1041	CB	GLN	1052	39.569	35.128	35.843	1.00	42.45
ATOM	1042	CG	GLN	1052	39.613	36.433	35.121	1.00	44.21
ATOM	1043	CD	GLN	1052	38.312	36.720	34.434	1.00	44.71
ATOM	1044	OE1	GLN	1052	37.416	37.322	35.018	1.00	45.99
ATOM	1045	NE2	GLN	1052	38.187	36.272	33.188	1.00	45.20
ATOM	1046	C	GLN	1052	40.626	33.539	37.382	1.00	46.21
ATOM	1047	O	GLN	1052	40.836	32.473	36.804	1.00	48.15
ATOM	1048	N	THR	1053	40.231	33.626	38.641	1.00	48.28
ATOM	1049	CA	THR	1053	39.989	32.448	39.448	1.00	50.63
ATOM	1050	CB	THR	1053	41.295	31.932	40.110	1.00	50.02
ATOM	1051	OG1	THR	1053	41.063	30.630	40.656	1.00	50.57

FIG. 5A-17

ATOM	1052	CG2	THR	1053	41.739	32.857	41.230	1.00	48.49
ATOM	1053	C	THR	1053	38.985	32.855	40.518	1.00	52.85
ATOM	1054	O	THR	1053	38.785	34.051	40.778	1.00	52.89
ATOM	1055	N	TRP	1054	38.352	31.861	41.133	1.00	54.32
ATOM	1056	CA	TRP	1054	37.379	32.125	42.177	1.00	55.13
ATOM	1057	CB	TRP	1054	36.490	30.902	42.375	1.00	53.53
ATOM	1058	CG	TRP	1054	35.712	30.541	41.152	1.00	51.79
ATOM	1059	CD2	TRP	1054	34.547	31.204	40.663	1.00	51.08
ATOM	1060	CE2	TRP	1054	34.151	30.537	39.482	1.00	51.32
ATOM	1061	CE3	TRP	1054	33.800	32.304	41.104	1.00	51.90
ATOM	1062	CD1	TRP	1054	35.973	29.523	40.274	1.00	51.71
ATOM	1063	NE1	TRP	1054	35.036	29.512	39.267	1.00	50.71
ATOM	1064	CZ2	TRP	1054	33.035	30.933	38.740	1.00	52.71
ATOM	1065	CZ3	TRP	1054	32.686	32.700	40.364	1.00	52.01
ATOM	1066	CH2	TRP	1054	32.317	32.016	39.193	1.00	52.64
ATOM	1067	C	TRP	1054	38.083	32.475	43.481	1.00	56.65
ATOM	1068	O	TRP	1054	39.105	31.878	43.822	1.00	56.36
ATOM	1069	N	ARG	1055	37.544	33.458	44.196	1.00	59.18
ATOM	1070	CA	ARG	1055	38.116	33.868	45.472	1.00	62.20
ATOM	1071	CB	ARG	1055	37.182	34.864	46.169	1.00	64.91
ATOM	1072	CG	ARG	1055	37.684	35.317	47.520	1.00	68.74
ATOM	1073	CD	ARG	1055	36.760	36.343	48.152	1.00	73.15
ATOM	1074	NE	ARG	1055	35.532	35.767	48.710	1.00	77.04
ATOM	1075	CZ	ARG	1055	34.413	35.531	48.022	1.00	78.94
ATOM	1076	NH1	ARG	1055	34.342	35.815	46.729	1.00	79.88
ATOM	1077	NH2	ARG	1055	33.347	35.026	48.633	1.00	79.28
ATOM	1078	C	ARG	1055	38.290	32.625	46.339	1.00	62.43
ATOM	1079	O	ARG	1055	39.195	32.538	47.168	1.00	61.61
ATOM	1080	N	THR	1056	37.392	31.669	46.116	1.00	62.73
ATOM	1081	CA	THR	1056	37.362	30.389	46.821	1.00	63.13
ATOM	1082	CB	THR	1056	36.210	29.502	46.294	1.00	64.09
ATOM	1083	OG1	THR	1056	34.960	30.036	46.748	1.00	64.78
ATOM	1084	CG2	THR	1056	36.397	28.047	46.731	1.00	63.58
ATOM	1085	C	THR	1056	38.661	29.627	46.610	1.00	62.88
ATOM	1086	O	THR	1056	39.292	29.177	47.567	1.00	62.96
ATOM	1087	N	THR	1057	39.046	29.483	45.346	1.00	61.85
ATOM	1088	CA	THR	1057	40.257	28.769	44.988	1.00	61.21
ATOM	1089	CB	THR	1057	40.514	28.821	43.464	1.00	61.05
ATOM	1090	OG1	THR	1057	39.324	28.439	42.764	1.00	60.64
ATOM	1091	CG2	THR	1057	41.639	27.870	43.087	1.00	59.52
ATOM	1092	C	THR	1057	41.473	29.332	45.707	1.00	61.89
ATOM	1093	O	THR	1057	42.304	28.578	46.218	1.00	61.24
ATOM	1094	N	LEU	1058	41.581	30.656	45.758	1.00	62.10
ATOM	1095	CA	LEU	1058	42.736	31.278	46.401	1.00	63.18
ATOM	1096	CB	LEU	1058	42.791	32.777	46.100	1.00	61.56
ATOM	1097	CG	LEU	1058	43.132	33.159	44.662	1.00	61.38
ATOM	1098	CD1	LEU	1058	43.377	34.648	44.589	1.00	60.19
ATOM	1099	CD2	LEU	1058	44.369	32.402	44.198	1.00	61.08
ATOM	1100	C	LEU	1058	42.763	31.068	47.901	1.00	65.06
ATOM	1101	O	LEU	1058	43.839	31.000	48.507	1.00	64.97
ATOM	1102	N	GLU	1059	41.583	30.947	48.500	1.00	67.41
ATOM	1103	CA	GLU	1059	41.495	30.754	49.940	1.00	69.28
ATOM	1104	CB	GLU	1059	40.101	31.134	50.423	1.00	70.55
ATOM	1105	CG	GLU	1059	39.890	32.638	50.463	1.00	73.05
ATOM	1106	CD	GLU	1059	38.429	33.022	50.537	1.00	74.89
ATOM	1107	OE1	GLU	1059	38.136	34.232	50.699	1.00	75.70
ATOM	1108	OE2	GLU	1059	37.576	32.113	50.421	1.00	75.75
ATOM	1109	C	GLU	1059	41.861	29.355	50.414	1.00	69.17
ATOM	1110	O	GLU	1059	42.138	29.163	51.592	1.00	69.42
ATOM	1111	N	ARG	1060	41.880	28.386	49.505	1.00	69.79
ATOM	1112	CA	ARG	1060	42.237	27.021	49.866	1.00	70.63
ATOM	1113	CB	ARG	1060	42.274	26.135	48.628	1.00	70.47

FIG. 5A-18

ATOM	1114	CG	ARG	1060	40.943	25.904	47.962	1.00	70.36
ATOM	1115	CD	ARG	1060	41.151	25.043	46.741	1.00	71.14
ATOM	1116	NE	ARG	1060	39.915	24.805	46.012	1.00	72.75
ATOM	1117	CZ	ARG	1060	39.857	24.182	44.840	1.00	74.02
ATOM	1118	NH1	ARG	1060	40.969	23.737	44.266	1.00	74.72
ATOM	1119	NH2	ARG	1060	38.688	24.003	44.239	1.00	75.21
ATOM	1120	C	ARG	1060	43.597	26.961	50.552	1.00	72.01
ATOM	1121	O	ARG	1060	43.869	26.050	51.333	1.00	72.23
ATOM	1122	N	TYR	1061	44.459	27.925	50.250	1.00	73.44
ATOM	1123	CA	TYR	1061	45.784	27.954	50.852	1.00	74.58
ATOM	1124	CB	TYR	1061	46.865	27.607	49.820	1.00	74.41
ATOM	1125	CG	TYR	1061	46.697	26.246	49.207	1.00	74.49
ATOM	1126	CD1	TYR	1061	45.729	26.016	48.230	1.00	75.19
ATOM	1127	CE1	TYR	1061	45.519	24.742	47.709	1.00	75.84
ATOM	1128	CD2	TYR	1061	47.461	25.170	49.646	1.00	74.57
ATOM	1129	CE2	TYR	1061	47.261	23.890	49.134	1.00	75.48
ATOM	1130	CZ	TYR	1061	46.288	23.685	48.169	1.00	76.06
ATOM	1131	OH	TYR	1061	46.080	22.423	47.674	1.00	76.24
ATOM	1132	C	TYR	1061	46.111	29.300	51.469	1.00	75.60
ATOM	1133	O	TYR	1061	46.630	30.189	50.795	1.00	75.99
ATOM	1134	N	PRO	1062	45.792	29.478	52.758	1.00	76.75
ATOM	1135	CD	PRO	1062	45.035	28.577	53.646	1.00	77.26
ATOM	1136	CA	PRO	1062	46.088	30.748	53.427	1.00	77.48
ATOM	1137	CB	PRO	1062	45.228	30.679	54.682	1.00	77.39
ATOM	1138	CG	PRO	1062	45.245	29.213	55.002	1.00	77.38
ATOM	1139	C	PRO	1062	47.586	30.756	53.730	1.00	78.06
ATOM	1140	O	PRO	1062	48.280	29.793	53.406	1.00	79.05
ATOM	1141	N	ASP	1063	48.079	31.824	54.345	1.00	77.95
ATOM	1142	CA	ASP	1063	49.502	31.956	54.676	1.00	78.60
ATOM	1143	CB	ASP	1063	50.040	30.682	55.351	1.00	80.09
ATOM	1144	CG	ASP	1063	50.802	29.780	54.390	1.00	82.22
ATOM	1145	OD1	ASP	1063	51.829	30.225	53.825	1.00	83.44
ATOM	1146	OD2	ASP	1063	50.375	28.620	54.203	1.00	83.23
ATOM	1147	C	ASP	1063	50.339	32.285	53.434	1.00	77.65
ATOM	1148	O	ASP	1063	51.438	32.841	53.544	1.00	78.70
ATOM	1149	N	THR	1064	49.832	31.923	52.256	1.00	75.10
ATOM	1150	CA	THR	1064	50.525	32.232	51.006	1.00	72.43
ATOM	1151	CB	THR	1064	50.102	31.297	49.865	1.00	71.56
ATOM	1152	OG1	THR	1064	48.689	31.413	49.662	1.00	71.11
ATOM	1153	CG2	THR	1064	50.453	29.857	50.192	1.00	70.28
ATOM	1154	C	THR	1064	50.074	33.644	50.664	1.00	71.07
ATOM	1155	O	THR	1064	49.020	34.081	51.122	1.00	71.42
ATOM	1156	N	LEU	1065	50.851	34.360	49.860	1.00	69.42
ATOM	1157	CA	LEU	1065	50.482	35.728	49.515	1.00	67.33
ATOM	1158	CB	LEU	1065	51.570	36.365	48.639	1.00	66.52
ATOM	1159	CG	LEU	1065	51.308	37.811	48.201	1.00	65.55
ATOM	1160	CD1	LEU	1065	52.599	38.613	48.197	1.00	64.74
ATOM	1161	CD2	LEU	1065	50.659	37.806	46.832	1.00	64.36
ATOM	1162	C	LEU	1065	49.114	35.865	48.841	1.00	66.46
ATOM	1163	O	LEU	1065	48.362	36.786	49.143	1.00	65.93
ATOM	1164	N	LEU	1066	48.776	34.946	47.946	1.00	66.07
ATOM	1165	CA	LEU	1066	47.503	35.034	47.243	1.00	66.33
ATOM	1166	CB	LEU	1066	47.554	34.208	45.959	1.00	64.88
ATOM	1167	CG	LEU	1066	48.388	34.843	44.847	1.00	64.16
ATOM	1168	CD1	LEU	1066	48.317	33.988	43.583	1.00	62.81
ATOM	1169	CD2	LEU	1066	47.863	36.250	44.585	1.00	61.88
ATOM	1170	C	LEU	1066	46.271	34.648	48.045	1.00	67.46
ATOM	1171	O	LEU	1066	45.177	35.144	47.776	1.00	67.47
ATOM	1172	N	GLY	1067	46.440	33.769	49.026	1.00	68.58
ATOM	1173	CA	GLY	1067	45.305	33.355	49.833	1.00	69.45
ATOM	1174	C	GLY	1067	45.267	33.977	51.217	1.00	69.67
ATOM	1175	O	GLY	1067	44.600	33.456	52.104	1.00	69.76

FIG. 5A-19

ATOM	1176	N	SER	1068	45.973	35.089	51.402	1.00	70.12
ATOM	1177	CA	SER	1068	46.024	35.761	52.694	1.00	70.71
ATOM	1178	CB	SER	1068	47.219	35.259	53.498	1.00	70.76
ATOM	1179	OG	SER	1068	48.432	35.789	52.984	1.00	70.28
ATOM	1180	C	SER	1068	46.162	37.266	52.528	1.00	71.46
ATOM	1181	O	SER	1068	47.096	37.727	51.896	1.00	72.99
ATOM	1182	N	THR	1069	45.225	38.011	53.106	1.00	71.97
ATOM	1183	CA	THR	1069	45.178	39.477	53.078	1.00	72.07
ATOM	1184	CB	THR	1069	44.885	40.019	54.496	1.00	72.15
ATOM	1185	OG1	THR	1069	45.913	39.589	55.400	1.00	72.44
ATOM	1186	CG2	THR	1069	43.538	39.503	54.989	1.00	71.32
ATOM	1187	C	THR	1069	46.358	40.275	52.492	1.00	72.12
ATOM	1188	O	THR	1069	46.165	41.399	52.033	1.00	71.77
ATOM	1189	N	GLU	1070	47.571	39.726	52.534	1.00	72.67
ATOM	1190	CA	GLU	1070	48.742	40.399	51.965	1.00	73.64
ATOM	1191	CB	GLU	1070	49.926	39.439	51.848	1.00	75.83
ATOM	1192	CG	GLU	1070	50.673	39.116	53.118	1.00	79.98
ATOM	1193	CD	GLU	1070	51.977	38.377	52.825	1.00	82.50
ATOM	1194	OE1	GLU	1070	52.890	38.989	52.220	1.00	82.69
ATOM	1195	OE2	GLU	1070	52.086	37.183	53.186	1.00	84.45
ATOM	1196	C	GLU	1070	48.460	40.933	50.558	1.00	72.88
ATOM	1197	O	GLU	1070	48.818	42.064	50.230	1.00	72.44
ATOM	1198	N	LYS	1071	47.828	40.108	49.727	1.00	71.70
ATOM	1199	CA	LYS	1071	47.527	40.493	48.357	1.00	71.72
ATOM	1200	CB	LYS	1071	46.759	39.382	47.634	1.00	70.88
ATOM	1201	CG	LYS	1071	45.375	39.100	48.162	1.00	71.14
ATOM	1202	CD	LYS	1071	44.563	38.379	47.101	1.00	71.20
ATOM	1203	CE	LYS	1071	43.213	37.927	47.615	1.00	71.34
ATOM	1204	NZ	LYS	1071	43.327	36.780	48.555	1.00	71.38
ATOM	1205	C	LYS	1071	46.768	41.804	48.221	1.00	71.87
ATOM	1206	O	LYS	1071	46.738	42.392	47.144	1.00	72.20
ATOM	1207	N	GLU	1072	46.156	42.270	49.302	1.00	72.44
ATOM	1208	CA	GLU	1072	45.420	43.529	49.260	1.00	72.28
ATOM	1209	CB	GLU	1072	44.657	43.742	50.567	1.00	73.54
ATOM	1210	CG	GLU	1072	43.157	43.466	50.463	1.00	75.53
ATOM	1211	CD	GLU	1072	42.829	42.107	49.851	1.00	76.82
ATOM	1212	OE1	GLU	1072	43.185	41.061	50.449	1.00	76.51
ATOM	1213	OE2	GLU	1072	42.206	42.095	48.765	1.00	76.77
ATOM	1214	C	GLU	1072	46.386	44.680	49.015	1.00	71.72
ATOM	1215	O	GLU	1072	45.985	45.759	48.594	1.00	71.71
ATOM	1216	N	PHE	1073	47.663	44.432	49.271	1.00	71.61
ATOM	1217	CA	PHE	1073	48.709	45.427	49.068	1.00	72.73
ATOM	1218	CB	PHE	1073	50.037	44.888	49.612	1.00	73.39
ATOM	1219	CG	PHE	1073	51.214	45.801	49.375	1.00	75.45
ATOM	1220	CD1	PHE	1073	51.551	46.787	50.304	1.00	75.32
ATOM	1221	CD2	PHE	1073	51.988	45.677	48.216	1.00	75.55
ATOM	1222	CE1	PHE	1073	52.645	47.637	50.083	1.00	75.72
ATOM	1223	CE2	PHE	1073	53.080	46.521	47.984	1.00	75.31
ATOM	1224	CZ	PHE	1073	53.409	47.502	48.920	1.00	75.60
ATOM	1225	C	PHE	1073	48.864	45.768	47.578	1.00	73.30
ATOM	1226	O	PHE	1073	49.384	46.829	47.230	1.00	73.40
ATOM	1227	N	PHE	1074	48.425	44.864	46.703	1.00	73.64
ATOM	1228	CA	PHE	1074	48.526	45.073	45.258	1.00	73.71
ATOM	1229	CB	PHE	1074	49.240	43.902	44.568	1.00	69.98
ATOM	1230	CG	PHE	1074	50.423	43.374	45.318	1.00	66.10
ATOM	1231	CD1	PHE	1074	50.248	42.586	46.449	1.00	63.80
ATOM	1232	CD2	PHE	1074	51.714	43.666	44.896	1.00	64.01
ATOM	1233	CE1	PHE	1074	51.336	42.098	47.151	1.00	62.95
ATOM	1234	CE2	PHE	1074	52.814	43.182	45.593	1.00	63.38
ATOM	1235	CZ	PHE	1074	52.625	42.395	46.725	1.00	62.84
ATOM	1236	C	PHE	1074	47.131	45.158	44.688	1.00	75.86
ATOM	1237	O	PHE	1074	46.657	44.205	44.093	1.00	76.77

FIG. 5A-20

ATOM	1238	N	PHE	1075	46.468	46.292	44.846	1.00	79.19
ATOM	1239	CA	PHE	1075	45.109	46.393	44.335	1.00	81.80
ATOM	1240	CB	PHE	1075	44.147	45.893	45.419	1.00	81.14
ATOM	1241	CG	PHE	1075	42.734	45.710	44.950	1.00	82.07
ATOM	1242	CD1	PHE	1075	41.945	46.804	44.611	1.00	82.38
ATOM	1243	CD2	PHE	1075	42.184	44.435	44.863	1.00	82.50
ATOM	1244	CE1	PHE	1075	40.625	46.631	44.192	1.00	82.10
ATOM	1245	CE2	PHE	1075	40.867	44.250	44.445	1.00	82.46
ATOM	1246	CZ	PHE	1075	40.088	45.350	44.111	1.00	82.30
ATOM	1247	C	PHE	1075	44.743	47.809	43.912	1.00	83.61
ATOM	1248	O	PHE	1075	44.850	48.732	44.712	1.00	84.62
ATOM	1249	N	ASN	1076	44.334	47.983	42.655	1.00	85.79
ATOM	1250	CA	ASN	1076	43.915	49.301	42.169	1.00	88.27
ATOM	1251	CB	ASN	1076	44.399	49.572	40.736	1.00	88.95
ATOM	1252	CG	ASN	1076	45.912	49.440	40.579	1.00	90.39
ATOM	1253	OD1	ASN	1076	46.674	49.663	41.523	1.00	90.81
ATOM	1254	ND2	ASN	1076	46.351	49.094	39.369	1.00	89.65
ATOM	1255	C	ASN	1076	42.395	49.255	42.184	1.00	89.79
ATOM	1256	O	ASN	1076	41.788	48.534	41.392	1.00	89.95
ATOM	1257	N	GLU	1077	41.781	50.014	43.088	1.00	91.57
ATOM	1258	CA	GLU	1077	40.322	50.018	43.213	1.00	92.90
ATOM	1259	CB	GLU	1077	39.901	50.784	44.473	1.00	94.22
ATOM	1260	CG	GLU	1077	38.749	50.125	45.230	1.00	96.18
ATOM	1261	CD	GLU	1077	38.484	50.769	46.584	1.00	97.56
ATOM	1262	OE1	GLU	1077	37.915	51.886	46.620	1.00	97.85
ATOM	1263	OE2	GLU	1077	38.856	50.156	47.612	1.00	98.21
ATOM	1264	C	GLU	1077	39.609	50.590	41.988	1.00	92.56
ATOM	1265	O	GLU	1077	38.431	50.306	41.755	1.00	92.27
ATOM	1266	N	ASP	1078	40.327	51.392	41.209	1.00	92.66
ATOM	1267	CA	ASP	1078	39.766	51.986	40.000	1.00	92.45
ATOM	1268	CB	ASP	1078	40.302	53.409	39.806	1.00	93.93
ATOM	1269	CG	ASP	1078	41.740	53.560	40.265	1.00	95.05
ATOM	1270	OD1	ASP	1078	42.607	52.762	39.833	1.00	95.30
ATOM	1271	OD2	ASP	1078	41.996	54.489	41.062	1.00	95.42
ATOM	1272	C	ASP	1078	40.072	51.132	38.767	1.00	90.82
ATOM	1273	O	ASP	1078	40.325	51.650	37.678	1.00	91.05
ATOM	1274	N	THR	1079	40.051	49.818	38.967	1.00	88.60
ATOM	1275	CA	THR	1079	40.287	48.830	37.918	1.00	85.91
ATOM	1276	CB	THR	1079	41.792	48.596	37.664	1.00	86.06
ATOM	1277	OG1	THR	1079	42.472	48.493	38.917	1.00	86.97
ATOM	1278	CG2	THR	1079	42.394	49.728	36.850	1.00	85.02
ATOM	1279	C	THR	1079	39.668	47.538	38.431	1.00	83.65
ATOM	1280	O	THR	1079	39.348	46.633	37.659	1.00	83.40
ATOM	1281	N	LYS	1080	39.491	47.478	39.749	1.00	80.88
ATOM	1282	CA	LYS	1080	38.911	46.320	40.419	1.00	78.54
ATOM	1283	CB	LYS	1080	37.457	46.106	39.972	1.00	80.40
ATOM	1284	CG	LYS	1080	36.522	47.276	40.284	1.00	83.06
ATOM	1285	CD	LYS	1080	36.375	47.537	41.789	1.00	84.70
ATOM	1286	CE	LYS	1080	35.457	46.517	42.463	1.00	85.87
ATOM	1287	NZ	LYS	1080	35.951	45.110	42.344	1.00	86.76
ATOM	1288	C	LYS	1080	39.729	45.063	40.146	1.00	75.69
ATOM	1289	O	LYS	1080	39.176	44.004	39.829	1.00	75.56
ATOM	1290	N	GLU	1081	41.048	45.188	40.275	1.00	71.38
ATOM	1291	CA	GLU	1081	41.943	44.061	40.046	1.00	67.00
ATOM	1292	CB	GLU	1081	42.111	43.814	38.550	1.00	67.39
ATOM	1293	CG	GLU	1081	42.670	45.001	37.815	1.00	68.11
ATOM	1294	CD	GLU	1081	42.833	44.730	36.346	1.00	68.74
ATOM	1295	OE1	GLU	1081	41.914	44.119	35.760	1.00	68.49
ATOM	1296	OE2	GLU	1081	43.872	45.138	35.779	1.00	69.19
ATOM	1297	C	GLU	1081	43.317	44.254	40.659	1.00	62.81
ATOM	1298	O	GLU	1081	43.834	45.368	40.737	1.00	62.11
ATOM	1299	N	TYR	1082	43.905	43.143	41.081	1.00	58.32

FIG. 5A-21

ATOM	1300	CA	TYR	1082	45.229	43.155	41.673	1.00	53.31
ATOM	1301	CB	TYR	1082	45.443	41.910	42.539	1.00	53.67
ATOM	1302	CG	TYR	1082	44.402	41.678	43.613	1.00	55.65
ATOM	1303	CD1	TYR	1082	43.152	41.138	43.302	1.00	56.05
ATOM	1304	CE1	TYR	1082	42.218	40.870	44.300	1.00	56.86
ATOM	1305	CD2	TYR	1082	44.686	41.953	44.951	1.00	56.15
ATOM	1306	CE2	TYR	1082	43.763	41.690	45.953	1.00	57.39
ATOM	1307	CZ	TYR	1082	42.533	41.147	45.625	1.00	58.16
ATOM	1308	OH	TYR	1082	41.627	40.867	46.627	1.00	60.04
ATOM	1309	C	TYR	1082	46.267	43.161	40.555	1.00	49.35
ATOM	1310	O	TYR	1082	46.106	42.484	39.548	1.00	46.65
ATOM	1311	N	PHE	1083	47.323	43.939	40.725	1.00	45.87
ATOM	1312	CA	PHE	1083	48.361	43.968	39.723	1.00	44.35
ATOM	1313	CB	PHE	1083	48.561	45.364	39.134	1.00	42.81
ATOM	1314	CG	PHE	1083	49.720	45.435	38.171	1.00	43.31
ATOM	1315	CD1	PHE	1083	49.636	44.828	36.914	1.00	42.99
ATOM	1316	CD2	PHE	1083	50.928	46.022	38.552	1.00	41.85
ATOM	1317	CE1	PHE	1083	50.738	44.801	36.057	1.00	41.77
ATOM	1318	CE2	PHE	1083	52.029	45.996	37.702	1.00	43.29
ATOM	1319	CZ	PHE	1083	51.935	45.384	36.453	1.00	41.19
ATOM	1320	C	PHE	1083	49.680	43.495	40.301	1.00	43.56
ATOM	1321	O	PHE	1083	50.112	43.955	41.353	1.00	42.73
ATOM	1322	N	PHE	1084	50.318	42.580	39.582	1.00	44.36
ATOM	1323	CA	PHE	1084	51.598	42.026	39.985	1.00	45.31
ATOM	1324	CB	PHE	1084	51.469	40.518	40.223	1.00	45.85
ATOM	1325	CG	PHE	1084	50.615	40.162	41.402	1.00	45.39
ATOM	1326	CD1	PHE	1084	51.152	40.150	42.685	1.00	46.46
ATOM	1327	CD2	PHE	1084	49.269	39.853	41.234	1.00	46.34
ATOM	1328	CE1	PHE	1084	50.357	39.831	43.796	1.00	46.96
ATOM	1329	CE2	PHE	1084	48.464	39.534	42.330	1.00	47.11
ATOM	1330	CZ	PHE	1084	49.007	39.522	43.615	1.00	46.93
ATOM	1331	C	PHE	1084	52.623	42.293	38.896	1.00	45.45
ATOM	1332	O	PHE	1084	52.499	41.822	37.767	1.00	46.89
ATOM	1333	N	ASP	1085	53.633	43.071	39.242	1.00	46.12
ATOM	1334	CA	ASP	1085	54.692	43.392	38.313	1.00	46.55
ATOM	1335	CB	ASP	1085	55.327	44.720	38.738	1.00	46.98
ATOM	1336	CG	ASP	1085	56.216	45.324	37.667	1.00	50.33
ATOM	1337	OD1	ASP	1085	56.027	45.014	36.468	1.00	51.77
ATOM	1338	OD2	ASP	1085	57.101	46.130	38.027	1.00	50.66
ATOM	1339	C	ASP	1085	55.688	42.225	38.377	1.00	46.38
ATOM	1340	O	ASP	1085	56.859	42.407	38.702	1.00	45.77
ATOM	1341	N	ARG	1086	55.195	41.019	38.083	1.00	46.71
ATOM	1342	CA	ARG	1086	56.008	39.796	38.104	1.00	46.02
ATOM	1343	CB	ARG	1086	55.530	38.827	39.192	1.00	47.42
ATOM	1344	CG	ARG	1086	55.262	39.406	40.576	1.00	50.24
ATOM	1345	CD	ARG	1086	56.514	39.718	41.355	1.00	49.79
ATOM	1346	NE	ARG	1086	57.595	38.777	41.096	1.00	52.94
ATOM	1347	CZ	ARG	1086	58.680	38.672	41.858	1.00	53.34
ATOM	1348	NH1	ARG	1086	58.803	39.447	42.925	1.00	52.58
ATOM	1349	NH2	ARG	1086	59.650	37.818	41.545	1.00	52.70
ATOM	1350	C	ARG	1086	55.904	39.057	36.769	1.00	44.60
ATOM	1351	O	ARG	1086	55.155	39.457	35.873	1.00	42.80
ATOM	1352	N	ASP	1087	56.637	37.952	36.656	1.00	43.86
ATOM	1353	CA	ASP	1087	56.614	37.160	35.440	1.00	43.09
ATOM	1354	CB	ASP	1087	57.716	36.118	35.450	1.00	43.16
ATOM	1355	CG	ASP	1087	57.733	35.303	34.175	1.00	46.90
ATOM	1356	OD1	ASP	1087	57.866	35.893	33.080	1.00	47.95
ATOM	1357	OD2	ASP	1087	57.601	34.072	34.258	1.00	49.46
ATOM	1358	C	ASP	1087	55.275	36.456	35.224	1.00	42.73
ATOM	1359	O	ASP	1087	54.816	35.678	36.062	1.00	42.10
ATOM	1360	N	PRO	1088	54.637	36.706	34.075	1.00	42.37
ATOM	1361	CD	PRO	1088	55.020	37.655	33.013	1.00	41.20

FIG. 5A-22

ATOM	1362	CA	PRO	1088	53.345	36.071	33.796	1.00	42.63
ATOM	1363	CB	PRO	1088	52.814	36.875	32.612	1.00	40.59
ATOM	1364	CG	PRO	1088	54.046	37.323	31.911	1.00	41.50
ATOM	1365	C	PRO	1088	53.411	34.574	33.504	1.00	44.39
ATOM	1366	O	PRO	1088	52.450	33.850	33.743	1.00	43.38
ATOM	1367	N	GLU	1089	54.556	34.112	33.007	1.00	47.08
ATOM	1368	CA	GLU	1089	54.725	32.709	32.651	1.00	48.63
ATOM	1369	CB	GLU	1089	56.000	32.528	31.824	1.00	51.24
ATOM	1370	CG	GLU	1089	55.883	31.438	30.763	1.00	55.39
ATOM	1371	CD	GLU	1089	54.566	31.526	29.990	1.00	59.25
ATOM	1372	OE1	GLU	1089	53.630	30.758	30.316	1.00	60.78
ATOM	1373	OE2	GLU	1089	54.460	32.375	29.069	1.00	61.26
ATOM	1374	C	GLU	1089	54.751	31.759	33.839	1.00	48.75
ATOM	1375	O	GLU	1089	54.070	30.729	33.834	1.00	48.87
ATOM	1376	N	VAL	1090	55.538	32.097	34.854	1.00	48.59
ATOM	1377	CA	VAL	1090	55.644	31.257	36.042	1.00	48.38
ATOM	1378	CB	VAL	1090	56.823	31.701	36.952	1.00	49.09
ATOM	1379	CG1	VAL	1090	57.101	30.644	38.004	1.00	48.48
ATOM	1380	CG2	VAL	1090	58.064	31.936	36.121	1.00	51.46
ATOM	1381	C	VAL	1090	54.355	31.301	36.856	1.00	46.95
ATOM	1382	O	VAL	1090	53.995	30.320	37.498	1.00	47.89
ATOM	1383	N	PHE	1091	53.654	32.431	36.819	1.00	45.22
ATOM	1384	CA	PHE	1091	52.413	32.576	37.572	1.00	44.04
ATOM	1385	CB	PHE	1091	51.811	33.955	37.330	1.00	43.36
ATOM	1386	CG	PHE	1091	50.666	34.277	38.238	1.00	41.81
ATOM	1387	CD1	PHE	1091	50.895	34.669	39.547	1.00	42.43
ATOM	1388	CD2	PHE	1091	49.356	34.156	37.795	1.00	41.51
ATOM	1389	CE1	PHE	1091	49.839	34.937	40.410	1.00	41.49
ATOM	1390	CE2	PHE	1091	48.293	34.419	38.650	1.00	41.73
ATOM	1391	CZ	PHE	1091	48.537	34.812	39.963	1.00	41.20
ATOM	1392	C	PHE	1091	51.381	31.503	37.219	1.00	43.79
ATOM	1393	O	PHE	1091	50.546	31.149	38.042	1.00	42.27
ATOM	1394	N	ARG	1092	51.434	30.989	35.995	1.00	44.74
ATOM	1395	CA	ARG	1092	50.498	29.952	35.576	1.00	47.11
ATOM	1396	CB	ARG	1092	50.727	29.590	34.108	1.00	49.30
ATOM	1397	CG	ARG	1092	49.619	28.755	33.501	1.00	54.03
ATOM	1398	CD	ARG	1092	50.122	27.912	32.330	1.00	58.04
ATOM	1399	NE	ARG	1092	51.060	26.880	32.774	1.00	62.76
ATOM	1400	CZ	ARG	1092	51.715	26.050	31.966	1.00	65.25
ATOM	1401	NH1	ARG	1092	51.538	26.123	30.657	1.00	66.11
ATOM	1402	NH2	ARG	1092	52.562	25.158	32.467	1.00	66.67
ATOM	1403	C	ARG	1092	50.650	28.698	36.462	1.00	46.80
ATOM	1404	O	ARG	1092	49.661	28.059	36.807	1.00	44.23
ATOM	1405	N	CYS	1093	51.887	28.353	36.828	1.00	47.16
ATOM	1406	CA	CYS	1093	52.148	27.193	37.696	1.00	47.19
ATOM	1407	CB	CYS	1093	53.647	26.870	37.777	1.00	49.42
ATOM	1408	SG	CYS	1093	54.372	26.261	36.256	1.00	57.76
ATOM	1409	C	CYS	1093	51.669	27.494	39.101	1.00	45.39
ATOM	1410	O	CYS	1093	51.172	26.615	39.802	1.00	44.16
ATOM	1411	N	VAL	1094	51.848	28.741	39.520	1.00	43.91
ATOM	1412	CA	VAL	1094	51.420	29.141	40.843	1.00	44.14
ATOM	1413	CB	VAL	1094	51.819	30.600	41.147	1.00	44.88
ATOM	1414	CG1	VAL	1094	51.138	31.076	42.423	1.00	44.16
ATOM	1415	CG2	VAL	1094	53.333	30.698	41.295	1.00	45.26
ATOM	1416	C	VAL	1094	49.915	29.002	40.934	1.00	43.88
ATOM	1417	O	VAL	1094	49.397	28.381	41.858	1.00	43.99
ATOM	1418	N	LEU	1095	49.215	29.563	39.956	1.00	44.44
ATOM	1419	CA	LEU	1095	47.765	29.513	39.943	1.00	45.68
ATOM	1420	CB	LEU	1095	47.221	30.394	38.819	1.00	46.88
ATOM	1421	CG	LEU	1095	45.729	30.698	38.940	1.00	48.11
ATOM	1422	CD1	LEU	1095	45.482	31.426	40.262	1.00	48.21
ATOM	1423	CD2	LEU	1095	45.269	31.548	37.763	1.00	48.53

FIG. 5A-23

ATOM	1424	C	LEU	1095	47.225	28.092	39.806	1.00	46.37
ATOM	1425	O	LEU	1095	46.221	27.744	40.431	1.00	45.37
ATOM	1426	N	ASN	1096	47.887	27.273	38.994	1.00	47.42
ATOM	1427	CA	ASN	1096	47.452	25.903	38.816	1.00	49.62
ATOM	1428	CB	ASN	1096	48.245	25.219	37.702	1.00	51.80
ATOM	1429	CG	ASN	1096	47.754	25.614	36.309	1.00	55.06
ATOM	1430	OD1	ASN	1096	46.547	25.706	36.069	1.00	56.24
ATOM	1431	ND2	ASN	1096	48.687	25.834	35.383	1.00	55.43
ATOM	1432	C	ASN	1096	47.611	25.141	40.125	1.00	50.35
ATOM	1433	O	ASN	1096	46.955	24.118	40.345	1.00	48.90
ATOM	1434	N	PHE	1097	48.480	25.650	40.995	1.00	50.77
ATOM	1435	CA	PHE	1097	48.709	25.030	42.292	1.00	51.36
ATOM	1436	CB	PHE	1097	49.886	25.684	43.003	1.00	51.66
ATOM	1437	CG	PHE	1097	49.929	25.382	44.465	1.00	52.48
ATOM	1438	CD1	PHE	1097	50.206	24.095	44.914	1.00	53.14
ATOM	1439	CD2	PHE	1097	49.623	26.365	45.398	1.00	53.22
ATOM	1440	CE1	PHE	1097	50.174	23.789	46.278	1.00	52.88
ATOM	1441	CE2	PHE	1097	49.588	26.071	46.760	1.00	53.47
ATOM	1442	CZ	PHE	1097	49.864	24.779	47.198	1.00	52.54
ATOM	1443	C	PHE	1097	47.462	25.151	43.167	1.00	52.13
ATOM	1444	O	PHE	1097	46.979	24.155	43.711	1.00	53.47
ATOM	1445	N	TYR	1098	46.941	26.367	43.312	1.00	52.12
ATOM	1446	CA	TYR	1098	45.739	26.577	44.116	1.00	52.08
ATOM	1447	CB	TYR	1098	45.312	28.044	44.104	1.00	50.46
ATOM	1448	CG	TYR	1098	46.244	28.932	44.869	1.00	49.91
ATOM	1449	CD1	TYR	1098	47.440	29.367	44.306	1.00	49.56
ATOM	1450	CE1	TYR	1098	48.333	30.144	45.037	1.00	49.86
ATOM	1451	CD2	TYR	1098	45.961	29.295	46.180	1.00	49.66
ATOM	1452	CE2	TYR	1098	46.846	30.067	46.920	1.00	48.85
ATOM	1453	CZ	TYR	1098	48.027	30.488	46.345	1.00	49.32
ATOM	1454	OH	TYR	1098	48.900	31.252	47.076	1.00	49.77
ATOM	1455	C	TYR	1098	44.559	25.740	43.651	1.00	52.55
ATOM	1456	O	TYR	1098	43.806	25.216	44.469	1.00	53.71
ATOM	1457	N	ARG	1099	44.390	25.612	42.343	1.00	53.00
ATOM	1458	CA	ARG	1099	43.266	24.846	41.838	1.00	54.84
ATOM	1459	CB	ARG	1099	42.881	25.325	40.429	1.00	55.79
ATOM	1460	CG	ARG	1099	44.012	25.347	39.428	1.00	59.67
ATOM	1461	CD	ARG	1099	43.483	25.585	38.021	1.00	61.78
ATOM	1462	NE	ARG	1099	42.802	26.872	37.901	1.00	64.51
ATOM	1463	CZ	ARG	1099	43.331	27.957	37.337	1.00	66.36
ATOM	1464	NH1	ARG	1099	44.558	27.915	36.830	1.00	67.02
ATOM	1465	NH2	ARG	1099	42.635	29.089	37.282	1.00	66.44
ATOM	1466	C	ARG	1099	43.438	23.328	41.844	1.00	54.56
ATOM	1467	O	ARG	1099	42.453	22.607	41.741	1.00	55.79
ATOM	1468	N	THR	1100	44.664	22.831	41.977	1.00	53.95
ATOM	1469	CA	THR	1100	44.860	21.382	41.975	1.00	53.09
ATOM	1470	CB	THR	1100	45.631	20.895	40.721	1.00	51.84
ATOM	1471	OG1	THR	1100	47.003	21.307	40.801	1.00	49.92
ATOM	1472	CG2	THR	1100	44.992	21.451	39.456	1.00	50.73
ATOM	1473	C	THR	1100	45.593	20.845	43.192	1.00	53.71
ATOM	1474	O	THR	1100	45.594	19.638	43.425	1.00	54.31
ATOM	1475	N	GLY	1101	46.216	21.731	43.963	1.00	53.79
ATOM	1476	CA	GLY	1101	46.944	21.289	45.137	1.00	54.19
ATOM	1477	C	GLY	1101	48.345	20.834	44.784	1.00	55.26
ATOM	1478	O	GLY	1101	49.233	20.808	45.637	1.00	56.41
ATOM	1479	N	LYS	1102	48.549	20.473	43.522	1.00	55.38
ATOM	1480	CA	LYS	1102	49.859	20.024	43.065	1.00	56.28
ATOM	1481	CB	LYS	1102	49.724	18.902	42.031	1.00	57.82
ATOM	1482	CG	LYS	1102	48.689	17.850	42.354	1.00	61.24
ATOM	1483	CD	LYS	1102	48.847	16.632	41.441	1.00	63.57
ATOM	1484	CE	LYS	1102	50.208	15.956	41.655	1.00	64.84
ATOM	1485	NZ	LYS	1102	50.410	14.730	40.817	1.00	65.31

FIG. 5A-24

ATOM	1486	C	LYS	1102	50.642	21.171	42.426	1.00	55.11
ATOM	1487	O	LYS	1102	50.108	21.935	41.612	1.00	56.00
ATOM	1488	N	LEU	1103	51.910	21.291	42.799	1.00	52.74
ATOM	1489	CA	LEU	1103	52.768	22.318	42.230	1.00	49.68
ATOM	1490	CB	LEU	1103	53.579	23.007	43.325	1.00	48.84
ATOM	1491	CG	LEU	1103	54.524	24.117	42.872	1.00	48.93
ATOM	1492	CD1	LEU	1103	53.741	25.197	42.144	1.00	48.04
ATOM	1493	CD2	LEU	1103	55.241	24.691	44.080	1.00	48.66
ATOM	1494	C	LEU	1103	53.701	21.622	41.253	1.00	47.72
ATOM	1495	O	LEU	1103	54.454	20.738	41.635	1.00	47.45
ATOM	1496	N	HIS	1104	53.633	22.014	39.988	1.00	46.69
ATOM	1497	CA	HIS	1104	54.476	21.421	38.954	1.00	45.97
ATOM	1498	CB	HIS	1104	53.665	21.187	37.677	1.00	43.83
ATOM	1499	CG	HIS	1104	52.441	20.355	37.893	1.00	44.77
ATOM	1500	CD2	HIS	1104	51.177	20.702	38.236	1.00	43.94
ATOM	1501	ND1	HIS	1104	52.463	18.978	37.866	1.00	44.77
ATOM	1502	CE1	HIS	1104	51.270	18.511	38.188	1.00	43.46
ATOM	1503	NE2	HIS	1104	50.472	19.538	38.419	1.00	45.15
ATOM	1504	C	HIS	1104	55.669	22.311	38.629	1.00	46.31
ATOM	1505	O	HIS	1104	55.721	23.488	38.994	1.00	46.64
ATOM	1506	N	TYR	1105	56.643	21.730	37.949	1.00	46.18
ATOM	1507	CA	TYR	1105	57.813	22.471	37.541	1.00	46.56
ATOM	1508	CB	TYR	1105	59.080	21.906	38.203	1.00	45.78
ATOM	1509	CG	TYR	1105	60.347	22.491	37.622	1.00	45.87
ATOM	1510	CD1	TYR	1105	60.656	23.845	37.784	1.00	44.93
ATOM	1511	CE1	TYR	1105	61.771	24.407	37.162	1.00	45.93
ATOM	1512	CD2	TYR	1105	61.193	21.710	36.831	1.00	45.93
ATOM	1513	CE2	TYR	1105	62.306	22.259	36.209	1.00	46.26
ATOM	1514	CZ	TYR	1105	62.588	23.604	36.373	1.00	46.23
ATOM	1515	OH	TYR	1105	63.680	24.138	35.737	1.00	46.63
ATOM	1516	C	TYR	1105	57.906	22.356	36.023	1.00	47.27
ATOM	1517	O	TYR	1105	58.143	21.271	35.493	1.00	46.80
ATOM	1518	N	PRO	1106	57.672	23.468	35.303	1.00	49.34
ATOM	1519	CD	PRO	1106	57.294	24.795	35.829	1.00	48.71
ATOM	1520	CA	PRO	1106	57.741	23.475	33.833	1.00	51.47
ATOM	1521	CB	PRO	1106	57.038	24.782	33.464	1.00	50.69
ATOM	1522	CG	PRO	1106	57.419	25.690	34.609	1.00	49.49
ATOM	1523	C	PRO	1106	59.219	23.442	33.416	1.00	53.52
ATOM	1524	O	PRO	1106	59.955	24.414	33.619	1.00	52.71
ATOM	1525	N	ARG	1107	59.643	22.318	32.842	1.00	55.69
ATOM	1526	CA	ARG	1107	61.034	22.133	32.450	1.00	58.82
ATOM	1527	CB	ARG	1107	61.231	20.720	31.917	1.00	60.44
ATOM	1528	CG	ARG	1107	60.251	20.303	30.856	1.00	63.65
ATOM	1529	CD	ARG	1107	60.457	18.832	30.549	1.00	66.63
ATOM	1530	NE	ARG	1107	60.396	18.033	31.770	1.00	69.05
ATOM	1531	CZ	ARG	1107	60.700	16.741	31.842	1.00	71.79
ATOM	1532	NH1	ARG	1107	61.093	16.082	30.755	1.00	72.53
ATOM	1533	NH2	ARG	1107	60.606	16.104	33.003	1.00	71.60
ATOM	1534	C	ARG	1107	61.665	23.137	31.482	1.00	59.70
ATOM	1535	O	ARG	1107	62.861	23.065	31.211	1.00	59.11
ATOM	1536	N	TYR	1108	60.879	24.075	30.969	1.00	60.84
ATOM	1537	CA	TYR	1108	61.422	25.070	30.054	1.00	61.83
ATOM	1538	CB	TYR	1108	60.378	25.425	28.976	1.00	64.01
ATOM	1539	CG	TYR	1108	59.078	26.023	29.507	1.00	65.37
ATOM	1540	CD1	TYR	1108	59.038	27.317	30.030	1.00	65.69
ATOM	1541	CE1	TYR	1108	57.858	27.850	30.550	1.00	66.57
ATOM	1542	CD2	TYR	1108	57.896	25.277	29.514	1.00	66.89
ATOM	1543	CE2	TYR	1108	56.710	25.799	30.029	1.00	67.01
ATOM	1544	CZ	TYR	1108	56.699	27.084	30.548	1.00	67.59
ATOM	1545	OH	TYR	1108	55.537	27.593	31.086	1.00	69.05
ATOM	1546	C	TYR	1108	61.819	26.323	30.844	1.00	61.18
ATOM	1547	O	TYR	1108	62.361	27.279	30.292	1.00	61.08

FIG. 5A-25

ATOM	1548	N	GLU	1109	61.553	26.305	32.145	1.00	59.72
ATOM	1549	CA	GLU	1109	61.846	27.456	32.986	1.00	58.79
ATOM	1550	CB	GLU	1109	60.674	27.701	33.951	1.00	61.40
ATOM	1551	CG	GLU	1109	60.604	29.127	34.483	1.00	65.76
ATOM	1552	CD	GLU	1109	60.544	30.160	33.360	1.00	69.33
ATOM	1553	OE1	GLU	1109	59.470	30.306	32.723	1.00	69.51
ATOM	1554	OE2	GLU	1109	61.582	30.814	33.109	1.00	70.74
ATOM	1555	C	GLU	1109	63.142	27.327	33.777	1.00	56.03
ATOM	1556	O	GLU	1109	63.503	26.243	34.215	1.00	54.80
ATOM	1557	N	CYS	1110	63.836	28.448	33.947	1.00	53.04
ATOM	1558	CA	CYS	1110	65.075	28.483	34.708	1.00	50.39
ATOM	1559	CB	CYS	1110	65.776	29.831	34.554	1.00	51.10
ATOM	1560	SG	CYS	1110	67.088	30.103	35.787	1.00	54.99
ATOM	1561	C	CYS	1110	64.721	28.276	36.170	1.00	49.39
ATOM	1562	O	CYS	1110	63.815	28.933	36.714	1.00	47.15
ATOM	1563	N	ILE	1111	65.451	27.370	36.806	1.00	47.33
ATOM	1564	CA	ILE	1111	65.209	27.042	38.195	1.00	47.33
ATOM	1565	CB	ILE	1111	66.210	25.933	38.669	1.00	48.14
ATOM	1566	CG2	ILE	1111	67.573	26.532	38.999	1.00	46.55
ATOM	1567	CG1	ILE	1111	65.622	25.182	39.858	1.00	48.78
ATOM	1568	CD1	ILE	1111	64.530	24.236	39.461	1.00	49.24
ATOM	1569	C	ILE	1111	65.267	28.279	39.109	1.00	46.81
ATOM	1570	O	ILE	1111	64.546	28.343	40.102	1.00	46.21
ATOM	1571	N	SER	1112	66.105	29.261	38.775	1.00	45.72
ATOM	1572	CA	SER	1112	66.202	30.472	39.597	1.00	46.37
ATOM	1573	CB	SER	1112	67.430	31.296	39.226	1.00	46.72
ATOM	1574	OG	SER	1112	68.607	30.628	39.620	1.00	53.75
ATOM	1575	C	SER	1112	64.974	31.353	39.458	1.00	45.62
ATOM	1576	O	SER	1112	64.457	31.864	40.447	1.00	44.28
ATOM	1577	N	ALA	1113	64.525	31.544	38.221	1.00	45.23
ATOM	1578	CA	ALA	1113	63.344	32.355	37.957	1.00	46.33
ATOM	1579	CB	ALA	1113	63.037	32.359	36.465	1.00	45.97
ATOM	1580	C	ALA	1113	62.187	31.746	38.730	1.00	46.02
ATOM	1581	O	ALA	1113	61.453	32.445	39.432	1.00	46.57
ATOM	1582	N	TYR	1114	62.063	30.426	38.607	1.00	46.07
ATOM	1583	CA	TYR	1114	61.022	29.648	39.268	1.00	46.10
ATOM	1584	CB	TYR	1114	61.209	28.168	38.909	1.00	46.01
ATOM	1585	CG	TYR	1114	60.119	27.238	39.389	1.00	45.54
ATOM	1586	CD1	TYR	1114	58.839	27.283	38.832	1.00	45.29
ATOM	1587	CE1	TYR	1114	57.834	26.404	39.259	1.00	44.44
ATOM	1588	CD2	TYR	1114	60.372	26.291	40.392	1.00	44.75
ATOM	1589	CE2	TYR	1114	59.377	25.408	40.828	1.00	44.48
ATOM	1590	CZ	TYR	1114	58.111	25.471	40.257	1.00	45.27
ATOM	1591	OH	TYR	1114	57.127	24.613	40.681	1.00	44.61
ATOM	1592	C	TYR	1114	61.052	29.857	40.788	1.00	47.73
ATOM	1593	O	TYR	1114	60.044	30.253	41.378	1.00	47.32
ATOM	1594	N	ASP	1115	62.200	29.603	41.418	1.00	49.45
ATOM	1595	CA	ASP	1115	62.335	29.782	42.863	1.00	51.72
ATOM	1596	CB	ASP	1115	63.736	29.400	43.346	1.00	53.37
ATOM	1597	CG	ASP	1115	63.943	27.898	43.435	1.00	56.61
ATOM	1598	OD1	ASP	1115	63.007	27.185	43.867	1.00	58.15
ATOM	1599	OD2	ASP	1115	65.053	27.430	43.090	1.00	59.12
ATOM	1600	C	ASP	1115	62.052	31.221	43.279	1.00	53.14
ATOM	1601	O	ASP	1115	61.425	31.462	44.313	1.00	52.72
ATOM	1602	N	ASP	1116	62.524	32.178	42.485	1.00	54.93
ATOM	1603	CA	ASP	1116	62.296	33.591	42.787	1.00	57.32
ATOM	1604	CB	ASP	1116	62.863	34.479	41.675	1.00	60.27
ATOM	1605	CG	ASP	1116	64.345	34.771	41.853	1.00	63.66
ATOM	1606	OD1	ASP	1116	65.060	33.923	42.442	1.00	65.56
ATOM	1607	OD2	ASP	1116	64.795	35.848	41.394	1.00	66.00
ATOM	1608	C	ASP	1116	60.805	33.863	42.938	1.00	57.36
ATOM	1609	O	ASP	1116	60.373	34.482	43.913	1.00	57.33

FIG. 5A-26

ATOM	1610	N	GLU	1117	60.018	33.394	41.974	1.00	56.04
ATOM	1611	CA	GLU	1117	58.582	33.602	42.030	1.00	55.48
ATOM	1612	CB	GLU	1117	57.932	33.193	40.704	1.00	55.62
ATOM	1613	CG	GLU	1117	58.530	33.878	39.467	1.00	56.24
ATOM	1614	CD	GLU	1117	58.531	35.410	39.544	1.00	55.63
ATOM	1615	OE1	GLU	1117	57.460	36.022	39.767	1.00	53.72
ATOM	1616	OE2	GLU	1117	59.617	36.003	39.364	1.00	56.38
ATOM	1617	C	GLU	1117	57.943	32.836	43.194	1.00	54.77
ATOM	1618	O	GLU	1117	57.097	33.380	43.910	1.00	54.46
ATOM	1619	N	LEU	1118	58.336	31.581	43.395	1.00	54.04
ATOM	1620	CA	LEU	1118	57.763	30.810	44.491	1.00	53.36
ATOM	1621	CB	LEU	1118	58.392	29.424	44.571	1.00	52.67
ATOM	1622	CG	LEU	1118	57.887	28.439	43.524	1.00	53.72
ATOM	1623	CD1	LEU	1118	58.362	27.031	43.876	1.00	53.19
ATOM	1624	CD2	LEU	1118	56.362	28.497	43.481	1.00	53.76
ATOM	1625	C	LEU	1118	57.977	31.545	45.802	1.00	53.28
ATOM	1626	O	LEU	1118	57.085	31.604	46.655	1.00	52.48
ATOM	1627	N	ALA	1119	59.169	32.109	45.956	1.00	53.26
ATOM	1628	CA	ALA	1119	59.505	32.859	47.159	1.00	53.56
ATOM	1629	CB	ALA	1119	60.946	33.371	47.072	1.00	51.54
ATOM	1630	C	ALA	1119	58.533	34.031	47.325	1.00	53.67
ATOM	1631	O	ALA	1119	57.928	34.201	48.384	1.00	53.70
ATOM	1632	N	PHE	1120	58.386	34.826	46.267	1.00	54.16
ATOM	1633	CA	PHE	1120	57.501	35.984	46.282	1.00	55.47
ATOM	1634	CB	PHE	1120	57.499	36.665	44.915	1.00	55.34
ATOM	1635	CG	PHE	1120	56.543	37.821	44.811	1.00	55.52
ATOM	1636	CD1	PHE	1120	56.853	39.054	45.379	1.00	55.25
ATOM	1637	CD2	PHE	1120	55.331	37.682	44.133	1.00	55.87
ATOM	1638	CE1	PHE	1120	55.974	40.133	45.273	1.00	54.86
ATOM	1639	CE2	PHE	1120	54.440	38.755	44.020	1.00	55.38
ATOM	1640	CZ	PHE	1120	54.765	39.983	44.592	1.00	55.48
ATOM	1641	C	PHE	1120	56.074	35.611	46.649	1.00	56.46
ATOM	1642	O	PHE	1120	55.414	36.321	47.411	1.00	57.39
ATOM	1643	N	TYR	1121	55.597	34.495	46.111	1.00	57.45
ATOM	1644	CA	TYR	1121	54.233	34.064	46.376	1.00	58.57
ATOM	1645	CB	TYR	1121	53.712	33.230	45.204	1.00	58.75
ATOM	1646	CG	TYR	1121	53.499	34.065	43.964	1.00	58.11
ATOM	1647	CD1	TYR	1121	52.518	35.057	43.933	1.00	58.27
ATOM	1648	CE1	TYR	1121	52.354	35.875	42.818	1.00	58.11
ATOM	1649	CD2	TYR	1121	54.312	33.906	42.844	1.00	57.55
ATOM	1650	CE2	TYR	1121	54.156	34.720	41.725	1.00	57.74
ATOM	1651	CZ	TYR	1121	53.177	35.701	41.719	1.00	57.37
ATOM	1652	OH	TYR	1121	53.026	36.508	40.617	1.00	58.12
ATOM	1653	C	TYR	1121	54.086	33.302	47.673	1.00	59.41
ATOM	1654	O	TYR	1121	52.982	32.906	48.041	1.00	59.83
ATOM	1655	N	GLY	1122	55.208	33.110	48.363	1.00	60.47
ATOM	1656	CA	GLY	1122	55.199	32.408	49.631	1.00	60.54
ATOM	1657	C	GLY	1122	54.864	30.938	49.514	1.00	61.66
ATOM	1658	O	GLY	1122	54.293	30.355	50.434	1.00	61.80
ATOM	1659	N	ILE	1123	55.203	30.333	48.382	1.00	63.04
ATOM	1660	CA	ILE	1123	54.935	28.914	48.182	1.00	64.42
ATOM	1661	CB	ILE	1123	54.401	28.628	46.766	1.00	63.77
ATOM	1662	CG2	ILE	1123	54.203	27.145	46.573	1.00	63.34
ATOM	1663	CG1	ILE	1123	53.073	29.349	46.560	1.00	64.03
ATOM	1664	CD1	ILE	1123	52.528	29.233	45.145	1.00	65.09
ATOM	1665	C	ILE	1123	56.251	28.187	48.384	1.00	65.61
ATOM	1666	O	ILE	1123	57.276	28.595	47.840	1.00	65.16
ATOM	1667	N	LEU	1124	56.216	27.124	49.181	1.00	67.28
ATOM	1668	CA	LEU	1124	57.409	26.340	49.480	1.00	69.17
ATOM	1669	CB	LEU	1124	57.306	25.749	50.888	1.00	71.19
ATOM	1670	CG	LEU	1124	57.523	26.687	52.086	1.00	72.78
ATOM	1671	CD1	LEU	1124	56.497	27.820	52.089	1.00	72.91

FIG. 5A-27

ATOM	1672	CD2	LEU	1124	57.424	25.870	53.373	1.00	73.00
ATOM	1673	C	LEU	1124	57.608	25.231	48.459	1.00	69.68
ATOM	1674	O	LEU	1124	56.722	24.406	48.244	1.00	69.85
ATOM	1675	N	PRO	1125	58.784	25.197	47.814	1.00	70.17
ATOM	1676	CD	PRO	1125	59.900	26.137	48.003	1.00	70.18
ATOM	1677	CA	PRO	1125	59.117	24.192	46.799	1.00	71.16
ATOM	1678	CB	PRO	1125	60.498	24.637	46.311	1.00	71.46
ATOM	1679	CG	PRO	1125	61.072	25.334	47.504	1.00	70.98
ATOM	1680	C	PRO	1125	59.088	22.738	47.261	1.00	72.28
ATOM	1681	O	PRO	1125	59.387	21.830	46.480	1.00	72.88
ATOM	1682	N	GLU	1126	58.733	22.517	48.524	1.00	73.08
ATOM	1683	CA	GLU	1126	58.636	21.161	49.062	1.00	73.97
ATOM	1684	CB	GLU	1126	58.816	21.154	50.583	1.00	75.54
ATOM	1685	CG	GLU	1126	60.158	21.677	51.055	1.00	78.21
ATOM	1686	CD	GLU	1126	60.278	23.181	50.901	1.00	80.43
ATOM	1687	OE1	GLU	1126	59.485	23.905	51.543	1.00	80.92
ATOM	1688	OE2	GLU	1126	61.159	23.640	50.141	1.00	81.78
ATOM	1689	C	GLU	1126	57.242	20.660	48.716	1.00	73.58
ATOM	1690	O	GLU	1126	56.903	19.497	48.932	1.00	73.67
ATOM	1691	N	ILE	1127	56.442	21.569	48.174	1.00	72.64
ATOM	1692	CA	ILE	1127	55.077	21.282	47.775	1.00	71.86
ATOM	1693	CB	ILE	1127	54.240	22.579	47.809	1.00	73.07
ATOM	1694	CG2	ILE	1127	52.831	22.312	47.322	1.00	73.41
ATOM	1695	CG1	ILE	1127	54.228	23.134	49.240	1.00	74.43
ATOM	1696	CD1	ILE	1127	53.606	24.524	49.391	1.00	74.78
ATOM	1697	C	ILE	1127	55.070	20.699	46.365	1.00	70.29
ATOM	1698	O	ILE	1127	54.035	20.258	45.868	1.00	70.38
ATOM	1699	N	ILE	1128	56.233	20.687	45.724	1.00	68.41
ATOM	1700	CA	ILE	1128	56.333	20.167	44.369	1.00	67.43
ATOM	1701	CB	ILE	1128	57.768	20.341	43.807	1.00	66.91
ATOM	1702	CG2	ILE	1128	57.911	19.621	42.464	1.00	64.80
ATOM	1703	CG1	ILE	1128	58.061	21.836	43.653	1.00	66.70
ATOM	1704	CD1	ILE	1128	59.303	22.155	42.874	1.00	66.89
ATOM	1705	C	ILE	1128	55.909	18.708	44.263	1.00	67.00
ATOM	1706	O	ILE	1128	56.499	17.826	44.887	1.00	66.29
ATOM	1707	N	GLY	1129	54.872	18.470	43.464	1.00	65.88
ATOM	1708	CA	GLY	1129	54.372	17.125	43.271	1.00	65.71
ATOM	1709	C	GLY	1129	55.459	16.112	42.964	1.00	65.72
ATOM	1710	O	GLY	1129	56.493	16.444	42.383	1.00	65.39
ATOM	1711	N	ASP	1130	55.217	14.867	43.364	1.00	65.80
ATOM	1712	CA	ASP	1130	56.154	13.771	43.140	1.00	65.58
ATOM	1713	CB	ASP	1130	55.582	12.472	43.731	1.00	69.23
ATOM	1714	CG	ASP	1130	56.563	11.304	43.652	1.00	73.87
ATOM	1715	OD1	ASP	1130	57.613	11.349	44.345	1.00	76.02
ATOM	1716	OD2	ASP	1130	56.285	10.340	42.894	1.00	76.17
ATOM	1717	C	ASP	1130	56.402	13.599	41.640	1.00	62.82
ATOM	1718	O	ASP	1130	57.429	13.060	41.222	1.00	62.46
ATOM	1719	N	CYS	1131	55.448	14.069	40.841	1.00	59.80
ATOM	1720	CA	CYS	1131	55.518	13.986	39.383	1.00	56.43
ATOM	1721	CB	CYS	1131	54.166	14.370	38.776	1.00	55.87
ATOM	1722	SG	CYS	1131	53.476	15.919	39.462	1.00	52.85
ATOM	1723	C	CYS	1131	56.587	14.908	38.823	1.00	54.87
ATOM	1724	O	CYS	1131	57.168	14.632	37.776	1.00	54.95
ATOM	1725	N	CYS	1132	56.842	16.005	39.526	1.00	53.29
ATOM	1726	CA	CYS	1132	57.820	16.977	39.072	1.00	53.58
ATOM	1727	CB	CYS	1132	57.172	18.365	38.972	1.00	52.31
ATOM	1728	SG	CYS	1132	56.219	18.620	37.453	1.00	48.71
ATOM	1729	C	CYS	1132	59.063	17.080	39.926	1.00	54.86
ATOM	1730	O	CYS	1132	60.050	17.663	39.487	1.00	54.76
ATOM	1731	N	TYR	1133	59.026	16.522	41.135	1.00	56.30
ATOM	1732	CA	TYR	1133	60.172	16.608	42.034	1.00	58.75
ATOM	1733	CB	TYR	1133	59.922	15.825	43.325	1.00	61.17

FIG. 5A-28

ATOM	1734	CG	TYR	1133	61.033	16.034	44.327	1.00	63.91
ATOM	1735	CD1	TYR	1133	61.308	17.312	44.829	1.00	65.09
ATOM	1736	CE1	TYR	1133	62.404	17.546	45.670	1.00	65.60
ATOM	1737	CD2	TYR	1133	61.875	14.984	44.698	1.00	64.85
ATOM	1738	CE2	TYR	1133	62.974	15.204	45.539	1.00	66.42
ATOM	1739	CZ	TYR	1133	63.236	16.490	46.018	1.00	66.85
ATOM	1740	OH	TYR	1133	64.345	16.726	46.809	1.00	67.41
ATOM	1741	C	TYR	1133	61.509	16.162	41.437	1.00	58.97
ATOM	1742	O	TYR	1133	62.495	16.895	41.498	1.00	57.30
ATOM	1743	N	GLU	1134	61.546	14.965	40.865	1.00	60.27
ATOM	1744	CA	GLU	1134	62.782	14.462	40.283	1.00	62.20
ATOM	1745	CB	GLU	1134	62.519	13.163	39.519	1.00	64.50
ATOM	1746	CG	GLU	1134	63.343	11.970	40.009	1.00	69.85
ATOM	1747	CD	GLU	1134	64.844	12.155	39.804	1.00	73.16
ATOM	1748	OE1	GLU	1134	65.274	12.364	38.645	1.00	74.03
ATOM	1749	OE2	GLU	1134	65.593	12.086	40.806	1.00	74.51
ATOM	1750	C	GLU	1134	63.440	15.491	39.364	1.00	62.07
ATOM	1751	O	GLU	1134	64.635	15.757	39.488	1.00	62.03
ATOM	1752	N	GLU	1135	62.662	16.074	38.453	1.00	61.95
ATOM	1753	CA	GLU	1135	63.185	17.077	37.522	1.00	61.21
ATOM	1754	CB	GLU	1135	62.142	17.422	36.454	1.00	64.56
ATOM	1755	CG	GLU	1135	62.538	16.985	35.049	1.00	68.98
ATOM	1756	CD	GLU	1135	63.798	17.676	34.554	1.00	71.87
ATOM	1757	OE1	GLU	1135	63.760	18.908	34.334	1.00	73.44
ATOM	1758	OE2	GLU	1135	64.829	16.987	34.388	1.00	73.71
ATOM	1759	C	GLU	1135	63.617	18.354	38.236	1.00	58.70
ATOM	1760	O	GLU	1135	64.642	18.940	37.902	1.00	57.24
ATOM	1761	N	TYR	1136	62.826	18.791	39.207	1.00	55.83
ATOM	1762	CA	TYR	1136	63.170	19.981	39.962	1.00	55.90
ATOM	1763	CB	TYR	1136	62.084	20.277	41.001	1.00	54.77
ATOM	1764	CG	TYR	1136	62.380	21.475	41.862	1.00	54.87
ATOM	1765	CD1	TYR	1136	62.287	22.761	41.348	1.00	56.18
ATOM	1766	CE1	TYR	1136	62.598	23.878	42.126	1.00	57.52
ATOM	1767	CD2	TYR	1136	62.792	21.323	43.182	1.00	55.91
ATOM	1768	CE2	TYR	1136	63.110	22.432	43.976	1.00	57.16
ATOM	1769	CZ	TYR	1136	63.010	23.707	43.440	1.00	59.03
ATOM	1770	OH	TYR	1136	63.321	24.815	44.203	1.00	60.74
ATOM	1771	C	TYR	1136	64.514	19.742	40.670	1.00	56.32
ATOM	1772	O	TYR	1136	65.383	20.617	40.693	1.00	54.54
ATOM	1773	N	LYS	1137	64.660	18.541	41.237	1.00	57.06
ATOM	1774	CA	LYS	1137	65.854	18.115	41.969	1.00	57.85
ATOM	1775	CB	LYS	1137	65.630	16.692	42.497	1.00	58.71
ATOM	1776	CG	LYS	1137	66.752	16.085	43.335	1.00	59.40
ATOM	1777	CD	LYS	1137	66.200	14.946	44.202	1.00	61.81
ATOM	1778	CE	LYS	1137	67.283	14.106	44.877	1.00	61.24
ATOM	1779	NZ	LYS	1137	67.937	13.174	43.915	1.00	62.70
ATOM	1780	C	LYS	1137	67.127	18.184	41.118	1.00	58.31
ATOM	1781	O	LYS	1137	68.158	18.691	41.563	1.00	58.65
ATOM	1782	N	ASP	1138	67.054	17.681	39.895	1.00	57.87
ATOM	1783	CA	ASP	1138	68.199	17.710	39.002	1.00	59.25
ATOM	1784	CB	ASP	1138	67.901	16.867	37.767	1.00	60.76
ATOM	1785	CG	ASP	1138	67.797	15.389	38.089	1.00	63.70
ATOM	1786	OD1	ASP	1138	67.418	15.054	39.235	1.00	65.41
ATOM	1787	OD2	ASP	1138	68.082	14.560	37.199	1.00	64.28
ATOM	1788	C	ASP	1138	68.549	19.133	38.585	1.00	59.52
ATOM	1789	O	ASP	1138	69.717	19.518	38.587	1.00	60.68
ATOM	1790	N	ARG	1139	67.531	19.909	38.227	1.00	59.49
ATOM	1791	CA	ARG	1139	67.717	21.290	37.798	1.00	59.65
ATOM	1792	CB	ARG	1139	66.373	21.905	37.370	1.00	61.85
ATOM	1793	CG	ARG	1139	65.632	21.141	36.270	1.00	65.43
ATOM	1794	CD	ARG	1139	66.249	21.344	34.888	1.00	68.42
ATOM	1795	NE	ARG	1139	67.539	22.011	34.968	1.00	72.10

FIG. 5A-29

ATOM	1796	CZ	ARG	1139	68.327	22.257	33.923	1.00	74.52
ATOM	1797	NH1	ARG	1139	67.954	21.886	32.699	1.00	74.57
ATOM	1798	NH2	ARG	1139	69.495	22.882	34.101	1.00	75.76
ATOM	1799	C	ARG	1139	68.316	22.126	38.922	1.00	58.60
ATOM	1800	O	ARG	1139	69.183	22.968	38.684	1.00	58.40
ATOM	1801	N	LYS	1140	67.838	21.892	40.140	1.00	57.64
ATOM	1802	CA	LYS	1140	68.310	22.607	41.318	1.00	57.00
ATOM	1803	CB	LYS	1140	67.426	22.263	42.521	1.00	57.12
ATOM	1804	CG	LYS	1140	66.845	23.476	43.243	1.00	57.83
ATOM	1805	CD	LYS	1140	67.925	24.290	43.949	1.00	58.84
ATOM	1806	CE	LYS	1140	67.367	25.593	44.520	1.00	58.97
ATOM	1807	NZ	LYS	1140	66.266	25.378	45.508	1.00	59.21
ATOM	1808	C	LYS	1140	69.763	22.229	41.611	1.00	57.10
ATOM	1809	O	LYS	1140	70.601	23.090	41.882	1.00	56.83
ATOM	1810	N	ARG	1141	70.059	20.937	41.550	1.00	56.92
ATOM	1811	CA	ARG	1141	71.406	20.458	41.801	1.00	57.58
ATOM	1812	CB	ARG	1141	71.439	18.929	41.783	1.00	57.10
ATOM	1813	CG	ARG	1141	72.838	18.355	41.897	1.00	56.29
ATOM	1814	CD	ARG	1141	72.835	16.843	41.984	1.00	56.00
ATOM	1815	NE	ARG	1141	72.201	16.206	40.832	1.00	55.05
ATOM	1816	CZ	ARG	1141	71.076	15.497	40.899	1.00	54.50
ATOM	1817	NH1	ARG	1141	70.454	15.335	42.066	1.00	54.03
ATOM	1818	NH2	ARG	1141	70.575	14.944	39.803	1.00	52.56
ATOM	1819	C	ARG	1141	72.381	21.008	40.767	1.00	58.54
ATOM	1820	O	ARG	1141	73.462	21.480	41.121	1.00	58.10
ATOM	1821	N	GLU	1142	71.999	20.941	39.494	1.00	59.45
ATOM	1822	CA	GLU	1142	72.836	21.434	38.401	1.00	60.83
ATOM	1823	CB	GLU	1142	72.088	21.275	37.076	1.00	63.74
ATOM	1824	CG	GLU	1142	72.970	21.096	35.844	1.00	68.58
ATOM	1825	CD	GLU	1142	73.231	19.621	35.512	1.00	71.70
ATOM	1826	OE1	GLU	1142	73.925	19.343	34.503	1.00	71.17
ATOM	1827	OE2	GLU	1142	72.735	18.743	36.259	1.00	72.94
ATOM	1828	C	GLU	1142	73.155	22.918	38.627	1.00	59.87
ATOM	1829	O	GLU	1142	74.263	23.394	38.362	1.00	58.83
ATOM	1830	N	ASN	1143	72.160	23.643	39.122	1.00	59.11
ATOM	1831	CA	ASN	1143	72.292	25.065	39.392	1.00	58.19
ATOM	1832	CB	ASN	1143	70.918	25.653	39.749	1.00	57.40
ATOM	1833	CG	ASN	1143	70.991	27.109	40.186	1.00	56.74
ATOM	1834	OD1	ASN	1143	71.028	27.413	41.379	1.00	56.39
ATOM	1835	ND2	ASN	1143	71.015	28.016	39.218	1.00	56.74
ATOM	1836	C	ASN	1143	73.273	25.286	40.529	1.00	57.95
ATOM	1837	O	ASN	1143	74.110	26.182	40.464	1.00	57.67
ATOM	1838	N	LEU	1144	73.162	24.461	41.568	1.00	59.10
ATOM	1839	CA	LEU	1144	74.028	24.553	42.741	1.00	60.10
ATOM	1840	CB	LEU	1144	73.559	23.572	43.806	1.00	57.82
ATOM	1841	CG	LEU	1144	72.314	24.061	44.532	1.00	56.94
ATOM	1842	CD1	LEU	1144	71.733	22.965	45.402	1.00	55.86
ATOM	1843	CD2	LEU	1144	72.695	25.279	45.362	1.00	56.29
ATOM	1844	C	LEU	1144	75.506	24.319	42.453	1.00	62.45
ATOM	1845	O	LEU	1144	76.366	24.842	43.157	1.00	62.61
ATOM	1846	N	GLU	1145	75.801	23.545	41.419	1.00	65.46
ATOM	1847	CA	GLU	1145	77.182	23.259	41.061	1.00	69.86
ATOM	1848	CB	GLU	1145	77.276	21.874	40.430	1.00	69.16
ATOM	1849	CG	GLU	1145	76.688	20.785	41.297	1.00	70.50
ATOM	1850	CD	GLU	1145	76.561	19.468	40.560	1.00	72.52
ATOM	1851	OE1	GLU	1145	75.820	19.413	39.549	1.00	73.03
ATOM	1852	OE2	GLU	1145	77.202	18.484	40.990	1.00	73.82
ATOM	1853	C	GLU	1145	77.762	24.296	40.095	1.00	72.44
ATOM	1854	O	GLU	1145	78.869	24.114	39.571	1.00	73.12
ATOM	1855	N	HIS	1146	77.031	25.384	39.859	1.00	75.49
ATOM	1856	CA	HIS	1146	77.519	26.425	38.941	1.00	79.39
ATOM	1857	CB	HIS	1146	76.374	27.320	38.427	1.00	80.38

FIG. 5A-30

ATOM	1858	CG	HIS	1146	75.601	26.736	37.279	1.00	81.30
ATOM	1859	CD2	HIS	1146	75.833	25.647	36.500	1.00	82.09
ATOM	1860	ND1	HIS	1146	74.398	27.271	36.846	1.00	81.56
ATOM	1861	CE1	HIS	1146	73.919	26.532	35.857	1.00	81.80
ATOM	1862	NE2	HIS	1146	74.768	25.539	35.626	1.00	82.53
ATOM	1863	C	HIS	1146	78.553	27.325	39.619	1.00	81.53
ATOM	1864	O	HIS	1146	78.939	27.106	40.787	1.00	81.98
ATOM	1865	N	HIS	1147	78.985	28.337	38.862	1.00	83.97
ATOM	1866	CA	HIS	1147	79.961	29.336	39.305	1.00	85.96
ATOM	1867	CB	HIS	1147	81.388	28.759	39.238	1.00	86.98
ATOM	1868	CG	HIS	1147	81.641	27.920	38.022	1.00	89.24
ATOM	1869	CD2	HIS	1147	82.264	26.720	37.877	1.00	89.74
ATOM	1870	ND1	HIS	1147	81.227	28.296	36.754	1.00	90.24
ATOM	1871	CE1	HIS	1147	81.585	27.361	35.882	1.00	90.34
ATOM	1872	NE2	HIS	1147	82.216	26.394	36.536	1.00	90.16
ATOM	1873	C	HIS	1147	79.836	30.551	38.364	1.00	86.45
ATOM	1874	O	HIS	1147	79.089	30.413	37.348	1.00	86.65
ATOM	1875	OXT	HIS	1147	80.478	31.612	38.638	1.00	86.22
ATOM	1906	ZN+2	ZN2	1300	54.120	17.502	37.808	1.00	56.72
ATOM	1	CB	ASP	2039	28.874	29.016	11.684	1.00	70.50
ATOM	2	CG	ASP	2039	29.988	28.336	12.479	1.00	70.41
ATOM	3	OD1	ASP	2039	30.962	27.853	11.857	1.00	68.36
ATOM	4	OD2	ASP	2039	29.886	28.278	13.721	1.00	70.30
ATOM	5	C	ASP	2039	28.237	30.893	13.214	1.00	69.71
ATOM	6	O	ASP	2039	27.971	31.979	12.687	1.00	70.09
ATOM	7	N	ASP	2039	26.531	29.842	11.773	1.00	70.21
ATOM	8	CA	ASP	2039	27.764	29.587	12.579	1.00	70.16
ATOM	9	N	GLU	2040	28.924	30.787	14.350	1.00	68.66
ATOM	10	CA	GLU	2040	29.434	31.965	15.046	1.00	67.27
ATOM	11	CB	GLU	2040	28.286	32.726	15.725	1.00	69.13
ATOM	12	CG	GLU	2040	27.055	31.891	16.074	1.00	73.34
ATOM	13	CD	GLU	2040	27.199	31.089	17.361	1.00	76.70
ATOM	14	OE1	GLU	2040	27.384	31.707	18.434	1.00	77.69
ATOM	15	OE2	GLU	2040	27.116	29.841	17.303	1.00	78.70
ATOM	16	C	GLU	2040	30.549	31.686	16.053	1.00	64.60
ATOM	17	O	GLU	2040	30.754	30.554	16.486	1.00	63.65
ATOM	18	N	LEU	2041	31.273	32.744	16.404	1.00	62.33
ATOM	19	CA	LEU	2041	32.387	32.673	17.342	1.00	60.05
ATOM	20	CB	LEU	2041	33.273	33.916	17.218	1.00	59.92
ATOM	21	CG	LEU	2041	34.085	34.130	15.944	1.00	60.42
ATOM	22	CD1	LEU	2041	34.790	35.478	16.031	1.00	60.03
ATOM	23	CD2	LEU	2041	35.096	33.002	15.774	1.00	60.26
ATOM	24	C	LEU	2041	31.951	32.562	18.791	1.00	58.41
ATOM	25	O	LEU	2041	31.090	33.315	19.251	1.00	58.19
ATOM	26	N	ILE	2042	32.550	31.622	19.513	1.00	55.99
ATOM	27	CA	ILE	2042	32.246	31.470	20.923	1.00	53.15
ATOM	28	CB	ILE	2042	31.740	30.049	21.270	1.00	53.72
ATOM	29	CG2	ILE	2042	30.395	29.793	20.602	1.00	53.90
ATOM	30	CG1	ILE	2042	32.749	29.001	20.825	1.00	53.56
ATOM	31	CD1	ILE	2042	32.274	27.598	21.081	1.00	54.40
ATOM	32	C	ILE	2042	33.529	31.755	21.683	1.00	51.19
ATOM	33	O	ILE	2042	34.623	31.446	21.206	1.00	50.52
ATOM	34	N	VAL	2043	33.386	32.370	22.849	1.00	48.59
ATOM	35	CA	VAL	2043	34.518	32.700	23.694	1.00	46.67
ATOM	36	CB	VAL	2043	34.359	34.091	24.298	1.00	45.09
ATOM	37	CG1	VAL	2043	35.518	34.383	25.241	1.00	43.49
ATOM	38	CG2	VAL	2043	34.277	35.104	23.197	1.00	43.23
ATOM	39	C	VAL	2043	34.655	31.693	24.837	1.00	46.20
ATOM	40	O	VAL	2043	33.729	31.472	25.607	1.00	45.96
ATOM	41	N	LEU	2044	35.822	31.081	24.930	1.00	45.72
ATOM	42	CA	LEU	2044	36.096	30.109	25.973	1.00	43.98
ATOM	43	CB	LEU	2044	36.651	28.832	25.338	1.00	44.64

FIG. 5A-31

ATOM	44	CG	LEU	2044	35.623	28.190	24.403	1.00	45.81
ATOM	45	CD1	LEU	2044	36.298	27.307	23.368	1.00	47.40
ATOM	46	CD2	LEU	2044	34.629	27.395	25.241	1.00	46.63
ATOM	47	C	LEU	2044	37.112	30.731	26.923	1.00	41.96
ATOM	48	O	LEU	2044	38.313	30.692	26.671	1.00	41.75
ATOM	49	N	ASN	2045	36.624	31.340	27.994	1.00	39.44
ATOM	50	CA	ASN	2045	37.505	31.958	28.967	1.00	38.57
ATOM	51	CB	ASN	2045	36.742	32.975	29.817	1.00	36.89
ATOM	52	CG	ASN	2045	37.647	33.716	30.791	1.00	39.46
ATOM	53	OD1	ASN	2045	38.692	33.204	31.222	1.00	38.79
ATOM	54	ND2	ASN	2045	37.243	34.924	31.156	1.00	38.46
ATOM	55	C	ASN	2045	38.078	30.865	29.875	1.00	38.24
ATOM	56	O	ASN	2045	37.348	30.244	30.656	1.00	37.59
ATOM	57	N	VAL	2046	39.385	30.638	29.771	1.00	37.26
ATOM	58	CA	VAL	2046	40.054	29.624	30.580	1.00	36.19
ATOM	59	CB	VAL	2046	40.788	28.626	29.670	1.00	34.19
ATOM	60	CG1	VAL	2046	41.418	27.484	30.507	1.00	31.81
ATOM	61	CG2	VAL	2046	39.798	28.090	28.631	1.00	30.02
ATOM	62	C	VAL	2046	41.031	30.307	31.534	1.00	38.32
ATOM	63	O	VAL	2046	42.141	30.672	31.150	1.00	37.84
ATOM	64	N	SER	2047	40.598	30.479	32.780	1.00	40.58
ATOM	65	CA	SER	2047	41.399	31.143	33.801	1.00	42.58
ATOM	66	CB	SER	2047	42.670	30.361	34.072	1.00	44.39
ATOM	67	OG	SER	2047	42.328	29.144	34.703	1.00	50.88
ATOM	68	C	SER	2047	41.753	32.566	33.427	1.00	43.26
ATOM	69	O	SER	2047	42.816	33.067	33.801	1.00	44.87
ATOM	70	N	GLY	2048	40.861	33.219	32.689	1.00	43.21
ATOM	71	CA	GLY	2048	41.105	34.592	32.293	1.00	44.14
ATOM	72	C	GLY	2048	41.690	34.729	30.904	1.00	44.57
ATOM	73	O	GLY	2048	41.657	35.810	30.330	1.00	44.13
ATOM	74	N	ARG	2049	42.234	33.642	30.367	1.00	45.32
ATOM	75	CA	ARG	2049	42.814	33.654	29.029	1.00	46.66
ATOM	76	CB	ARG	2049	43.966	32.644	28.948	1.00	49.65
ATOM	77	CG	ARG	2049	45.103	32.937	29.953	1.00	55.75
ATOM	78	CD	ARG	2049	45.953	34.173	29.562	1.00	58.66
ATOM	79	NE	ARG	2049	46.766	33.913	28.368	1.00	62.73
ATOM	80	CZ	ARG	2049	47.777	33.037	28.303	1.00	64.10
ATOM	81	NH1	ARG	2049	48.133	32.316	29.369	1.00	61.18
ATOM	82	NH2	ARG	2049	48.431	32.868	27.155	1.00	64.18
ATOM	83	C	ARG	2049	41.680	33.282	28.087	1.00	46.66
ATOM	84	O	ARG	2049	41.175	32.160	28.126	1.00	46.65
ATOM	85	N	ARG	2050	41.275	34.226	27.242	1.00	46.57
ATOM	86	CA	ARG	2050	40.155	33.986	26.346	1.00	47.08
ATOM	87	CB	ARG	2050	39.319	35.261	26.216	1.00	49.59
ATOM	88	CG	ARG	2050	38.693	35.683	27.545	1.00	54.03
ATOM	89	CD	ARG	2050	37.981	37.015	27.455	1.00	58.12
ATOM	90	NE	ARG	2050	37.657	37.545	28.782	1.00	64.32
ATOM	91	CZ	ARG	2050	38.561	37.804	29.728	1.00	66.71
ATOM	92	NH1	ARG	2050	39.851	37.581	29.496	1.00	67.42
ATOM	93	NH2	ARG	2050	38.179	38.292	30.906	1.00	66.06
ATOM	94	C	ARG	2050	40.465	33.430	24.977	1.00	45.72
ATOM	95	O	ARG	2050	41.164	34.035	24.174	1.00	48.18
ATOM	96	N	PHE	2051	39.917	32.256	24.722	1.00	42.53
ATOM	97	CA	PHE	2051	40.095	31.586	23.458	1.00	41.07
ATOM	98	CB	PHE	2051	40.334	30.099	23.706	1.00	39.97
ATOM	99	CG	PHE	2051	41.629	29.804	24.392	1.00	38.27
ATOM	100	CD1	PHE	2051	42.775	29.522	23.649	1.00	36.74
ATOM	101	CD2	PHE	2051	41.704	29.779	25.791	1.00	37.97
ATOM	102	CE1	PHE	2051	43.983	29.210	24.286	1.00	37.47
ATOM	103	CE2	PHE	2051	42.901	29.470	26.443	1.00	38.16
ATOM	104	CZ	PHE	2051	44.047	29.181	25.685	1.00	37.64
ATOM	105	C	PHE	2051	38.839	31.773	22.622	1.00	40.85

FIG. 5A-32

ATOM	106	O	PHE	2051	37.740	31.896	23.153	1.00	41.29
ATOM	107	N	GLN	2052	38.998	31.816	21.313	1.00	41.27
ATOM	108	CA	GLN	2052	37.847	31.951	20.443	1.00	43.58
ATOM	109	CB	GLN	2052	37.787	33.334	19.799	1.00	44.18
ATOM	110	CG	GLN	2052	37.543	34.464	20.788	1.00	48.74
ATOM	111	CD	GLN	2052	37.374	35.799	20.095	1.00	50.39
ATOM	112	OE1	GLN	2052	36.352	36.047	19.458	1.00	50.70
ATOM	113	NE2	GLN	2052	38.386	36.662	20.202	1.00	50.50
ATOM	114	C	GLN	2052	37.910	30.893	19.363	1.00	44.60
ATOM	115	O	GLN	2052	38.989	30.497	18.906	1.00	45.28
ATOM	116	N	THR	2053	36.744	30.422	18.962	1.00	43.67
ATOM	117	CA	THR	2053	36.696	29.430	17.926	1.00	44.06
ATOM	118	CB	THR	2053	37.027	28.045	18.489	1.00	43.23
ATOM	119	OG1	THR	2053	37.014	27.089	17.428	1.00	42.30
ATOM	120	CG2	THR	2053	36.010	27.638	19.554	1.00	44.61
ATOM	121	C	THR	2053	35.300	29.458	17.343	1.00	45.23
ATOM	122	O	THR	2053	34.443	30.214	17.804	1.00	44.70
ATOM	123	N	TRP	2054	35.079	28.654	16.314	1.00	47.63
ATOM	124	CA	TRP	2054	33.774	28.585	15.685	1.00	50.34
ATOM	125	CB	TRP	2054	33.910	28.249	14.197	1.00	51.45
ATOM	126	CG	TRP	2054	34.575	29.328	13.414	1.00	52.92
ATOM	127	CD2	TRP	2054	34.006	30.588	13.042	1.00	53.70
ATOM	128	CE2	TRP	2054	35.008	31.312	12.358	1.00	54.69
ATOM	129	CE3	TRP	2054	32.746	31.177	13.221	1.00	54.86
ATOM	130	CD1	TRP	2054	35.858	29.335	12.953	1.00	53.32
ATOM	131	NE1	TRP	2054	36.128	30.523	12.317	1.00	54.02
ATOM	132	CZ2	TRP	2054	34.788	32.605	11.849	1.00	54.65
ATOM	133	CZ3	TRP	2054	32.525	32.463	12.714	1.00	55.23
ATOM	134	CH2	TRP	2054	33.545	33.161	12.037	1.00	55.06
ATOM	135	C	TRP	2054	32.953	27.517	16.380	1.00	51.83
ATOM	136	O	TRP	2054	33.456	26.429	16.677	1.00	51.27
ATOM	137	N	ARG	2055	31.691	27.838	16.646	1.00	53.95
ATOM	138	CA	ARG	2055	30.795	26.896	17.299	1.00	55.48
ATOM	139	CB	ARG	2055	29.342	27.385	17.226	1.00	57.33
ATOM	140	CG	ARG	2055	28.300	26.310	17.551	1.00	59.98
ATOM	141	CD	ARG	2055	26.864	26.856	17.533	1.00	63.12
ATOM	142	NE	ARG	2055	26.469	27.448	16.250	1.00	65.32
ATOM	143	CZ	ARG	2055	26.393	26.785	15.096	1.00	66.97
ATOM	144	NH1	ARG	2055	26.682	25.487	15.040	1.00	67.43
ATOM	145	NH2	ARG	2055	26.033	27.425	13.988	1.00	67.22
ATOM	146	C	ARG	2055	30.908	25.536	16.638	1.00	54.89
ATOM	147	O	ARG	2055	30.878	24.522	17.316	1.00	55.46
ATOM	148	N	THR	2056	31.056	25.512	15.318	1.00	54.45
ATOM	149	CA	THR	2056	31.153	24.243	14.606	1.00	55.77
ATOM	150	CB	THR	2056	30.914	24.422	13.072	1.00	56.63
ATOM	151	OG1	THR	2056	31.814	25.407	12.539	1.00	56.88
ATOM	152	CG2	THR	2056	29.472	24.856	12.810	1.00	56.34
ATOM	153	C	THR	2056	32.473	23.510	14.823	1.00	56.39
ATOM	154	O	THR	2056	32.554	22.304	14.597	1.00	56.38
ATOM	155	N	THR	2057	33.504	24.232	15.261	1.00	56.80
ATOM	156	CA	THR	2057	34.813	23.624	15.503	1.00	56.99
ATOM	157	CB	THR	2057	35.877	24.688	15.896	1.00	56.50
ATOM	158	OG1	THR	2057	35.884	25.739	14.926	1.00	57.90
ATOM	159	CG2	THR	2057	37.272	24.067	15.954	1.00	55.26
ATOM	160	C	THR	2057	34.694	22.616	16.644	1.00	57.27
ATOM	161	O	THR	2057	35.203	21.494	16.566	1.00	55.68
ATOM	162	N	LEU	2058	34.008	23.028	17.704	1.00	57.75
ATOM	163	CA	LEU	2058	33.830	22.175	18.861	1.00	59.55
ATOM	164	CB	LEU	2058	33.259	22.983	20.030	1.00	57.58
ATOM	165	CG	LEU	2058	34.047	24.220	20.473	1.00	56.39
ATOM	166	CD1	LEU	2058	33.488	24.723	21.792	1.00	53.83
ATOM	167	CD2	LEU	2058	35.526	23.877	20.623	1.00	54.51

FIG. 5A-33

ATOM	168	C	LEU	2058	32.902	21.017	18.536	1.00	62.01
ATOM	169	O	LEU	2058	33.121	19.889	18.980	1.00	63.28
ATOM	170	N	GLU	2059	31.875	21.297	17.740	1.00	64.08
ATOM	171	CA	GLU	2059	30.892	20.290	17.373	1.00	66.29
ATOM	172	CB	GLU	2059	29.757	20.951	16.599	1.00	66.26
ATOM	173	CG	GLU	2059	29.183	22.140	17.332	1.00	67.32
ATOM	174	CD	GLU	2059	27.971	22.734	16.647	1.00	68.99
ATOM	175	OE1	GLU	2059	28.030	22.988	15.419	1.00	68.90
ATOM	176	OE2	GLU	2059	26.957	22.956	17.348	1.00	69.85
ATOM	177	C	GLU	2059	31.446	19.110	16.583	1.00	67.79
ATOM	178	O	GLU	2059	30.738	18.132	16.356	1.00	68.37
ATOM	179	N	ARG	2060	32.708	19.192	16.176	1.00	69.04
ATOM	180	CA	ARG	2060	33.324	18.114	15.413	1.00	70.72
ATOM	181	CB	ARG	2060	34.651	18.579	14.807	1.00	71.87
ATOM	182	CG	ARG	2060	34.490	19.686	13.787	1.00	73.32
ATOM	183	CD	ARG	2060	35.819	20.250	13.348	1.00	75.03
ATOM	184	NE	ARG	2060	35.644	21.257	12.306	1.00	77.17
ATOM	185	CZ	ARG	2060	36.640	21.947	11.755	1.00	78.54
ATOM	186	NH1	ARG	2060	37.891	21.744	12.150	1.00	78.65
ATOM	187	NH2	ARG	2060	36.387	22.833	10.798	1.00	78.46
ATOM	188	C	ARG	2060	33.556	16.884	16.277	1.00	71.31
ATOM	189	O	ARG	2060	33.922	15.819	15.769	1.00	71.43
ATOM	190	N	TYR	2061	33.340	17.029	17.581	1.00	71.73
ATOM	191	CA	TYR	2061	33.535	15.917	18.501	1.00	72.66
ATOM	192	CB	TYR	2061	34.938	15.958	19.103	1.00	72.57
ATOM	193	CG	TYR	2061	36.030	15.655	18.110	1.00	73.77
ATOM	194	CD1	TYR	2061	36.255	14.350	17.671	1.00	73.63
ATOM	195	CE1	TYR	2061	37.227	14.071	16.716	1.00	73.83
ATOM	196	CD2	TYR	2061	36.811	16.679	17.568	1.00	73.93
ATOM	197	CE2	TYR	2061	37.787	16.410	16.610	1.00	74.56
ATOM	198	CZ	TYR	2061	37.988	15.104	16.188	1.00	74.41
ATOM	199	OH	TYR	2061	38.947	14.831	15.240	1.00	74.86
ATOM	200	C	TYR	2061	32.521	15.889	19.624	1.00	73.44
ATOM	201	O	TYR	2061	32.778	16.404	20.710	1.00	73.83
ATOM	202	N	PRO	2062	31.341	15.301	19.374	1.00	74.36
ATOM	203	CD	PRO	2062	30.774	14.899	18.076	1.00	74.45
ATOM	204	CA	PRO	2062	30.325	15.233	20.425	1.00	74.56
ATOM	205	CB	PRO	2062	29.121	14.651	19.695	1.00	74.72
ATOM	206	CG	PRO	2062	29.310	15.158	18.293	1.00	74.36
ATOM	207	C	PRO	2062	30.877	14.289	21.482	1.00	74.64
ATOM	208	O	PRO	2062	32.028	13.886	21.389	1.00	75.75
ATOM	209	N	ASP	2063	30.069	13.935	22.474	1.00	74.48
ATOM	210	CA	ASP	2063	30.492	13.026	23.547	1.00	74.84
ATOM	211	CB	ASP	2063	30.963	11.674	22.972	1.00	75.88
ATOM	212	CG	ASP	2063	32.457	11.643	22.680	1.00	77.77
ATOM	213	OD1	ASP	2063	32.829	11.538	21.488	1.00	79.08
ATOM	214	OD2	ASP	2063	33.260	11.724	23.641	1.00	78.37
ATOM	215	C	ASP	2063	31.576	13.602	24.476	1.00	73.47
ATOM	216	O	ASP	2063	31.644	13.227	25.655	1.00	74.20
ATOM	217	N	THR	2064	32.427	14.489	23.953	1.00	70.48
ATOM	218	CA	THR	2064	33.469	15.116	24.771	1.00	67.40
ATOM	219	CB	THR	2064	34.695	15.543	23.941	1.00	66.93
ATOM	220	OG1	THR	2064	34.339	16.641	23.099	1.00	66.37
ATOM	221	CG2	THR	2064	35.194	14.388	23.084	1.00	66.49
ATOM	222	C	THR	2064	32.837	16.364	25.376	1.00	65.32
ATOM	223	O	THR	2064	31.930	16.948	24.792	1.00	65.05
ATOM	224	N	LEU	2065	33.314	16.774	26.542	1.00	63.11
ATOM	225	CA	LEU	2065	32.761	17.935	27.226	1.00	60.88
ATOM	226	CB	LEU	2065	33.708	18.345	28.354	1.00	60.61
ATOM	227	CG	LEU	2065	33.180	19.235	29.481	1.00	60.66
ATOM	228	CD1	LEU	2065	34.254	19.346	30.541	1.00	62.63
ATOM	229	CD2	LEU	2065	32.812	20.610	28.974	1.00	60.02

FIG. 5A-34

ATOM	230	C	LEU	2065	32.466	19.138	26.318	1.00	59.36
ATOM	231	O	LEU	2065	31.342	19.642	26.289	1.00	58.80
ATOM	232	N	LEU	2066	33.476	19.583	25.575	1.00	58.17
ATOM	233	CA	LEU	2066	33.358	20.745	24.692	1.00	58.28
ATOM	234	CB	LEU	2066	34.753	21.203	24.258	1.00	56.64
ATOM	235	CG	LEU	2066	35.673	21.682	25.381	1.00	55.41
ATOM	236	CD1	LEU	2066	37.061	21.939	24.817	1.00	53.95
ATOM	237	CD2	LEU	2066	35.091	22.934	26.035	1.00	52.67
ATOM	238	C	LEU	2066	32.484	20.577	23.452	1.00	58.89
ATOM	239	O	LEU	2066	31.822	21.524	23.027	1.00	58.11
ATOM	240	N	GLY	2067	32.504	19.384	22.863	1.00	59.32
ATOM	241	CA	GLY	2067	31.698	19.131	21.682	1.00	60.19
ATOM	242	C	GLY	2067	30.293	18.704	22.067	1.00	60.82
ATOM	243	O	GLY	2067	29.505	18.273	21.223	1.00	61.20
ATOM	244	N	SER	2068	29.990	18.828	23.357	1.00	60.66
ATOM	245	CA	SER	2068	28.691	18.466	23.905	1.00	60.28
ATOM	246	CB	SER	2068	28.842	17.481	25.055	1.00	59.39
ATOM	247	OG	SER	2068	29.253	16.226	24.571	1.00	63.29
ATOM	248	C	SER	2068	27.991	19.679	24.442	1.00	60.43
ATOM	249	O	SER	2068	28.469	20.806	24.322	1.00	61.17
ATOM	250	N	THR	2069	26.844	19.430	25.051	1.00	60.08
ATOM	251	CA	THR	2069	26.070	20.494	25.650	1.00	59.06
ATOM	252	CB	THR	2069	24.568	20.175	25.622	1.00	59.73
ATOM	253	OG1	THR	2069	24.348	18.859	26.156	1.00	60.24
ATOM	254	CG2	THR	2069	24.035	20.262	24.186	1.00	59.10
ATOM	255	C	THR	2069	26.539	20.611	27.085	1.00	57.91
ATOM	256	O	THR	2069	26.085	21.485	27.819	1.00	57.87
ATOM	257	N	GLU	2070	27.452	19.725	27.480	1.00	57.31
ATOM	258	CA	GLU	2070	27.992	19.753	28.836	1.00	57.47
ATOM	259	CB	GLU	2070	28.953	18.591	29.067	1.00	59.18
ATOM	260	CG	GLU	2070	28.315	17.236	28.955	1.00	63.22
ATOM	261	CD	GLU	2070	29.171	16.151	29.572	1.00	66.76
ATOM	262	OE1	GLU	2070	30.341	16.000	29.154	1.00	68.38
ATOM	263	OE2	GLU	2070	28.672	15.448	30.478	1.00	68.76
ATOM	264	C	GLU	2070	28.723	21.064	29.107	1.00	55.73
ATOM	265	O	GLU	2070	28.692	21.578	30.221	1.00	55.19
ATOM	266	N	LYS	2071	29.388	21.602	28.091	1.00	54.75
ATOM	267	CA	LYS	2071	30.097	22.861	28.265	1.00	54.14
ATOM	268	CB	LYS	2071	30.793	23.272	26.958	1.00	54.23
ATOM	269	CG	LYS	2071	29.868	23.520	25.776	1.00	53.85
ATOM	270	CD	LYS	2071	30.627	24.196	24.636	1.00	52.55
ATOM	271	CE	LYS	2071	29.807	24.273	23.354	1.00	51.71
ATOM	272	NZ	LYS	2071	29.422	22.927	22.850	1.00	49.96
ATOM	273	C	LYS	2071	29.110	23.944	28.703	1.00	53.14
ATOM	274	O	LYS	2071	29.471	24.887	29.415	1.00	52.24
ATOM	275	N	GLU	2072	27.857	23.782	28.290	1.00	52.94
ATOM	276	CA	GLU	2072	26.794	24.729	28.614	1.00	53.32
ATOM	277	CB	GLU	2072	25.466	24.221	28.045	1.00	54.50
ATOM	278	CG	GLU	2072	24.706	25.253	27.212	1.00	57.37
ATOM	279	CD	GLU	2072	25.537	25.824	26.062	1.00	59.11
ATOM	280	OE1	GLU	2072	25.666	27.069	25.990	1.00	59.34
ATOM	281	OE2	GLU	2072	26.055	25.033	25.236	1.00	59.00
ATOM	282	C	GLU	2072	26.638	25.039	30.107	1.00	52.40
ATOM	283	O	GLU	2072	26.049	26.057	30.473	1.00	53.44
ATOM	284	N	PHE	2073	27.166	24.174	30.968	1.00	51.08
ATOM	285	CA	PHE	2073	27.075	24.382	32.414	1.00	50.78
ATOM	286	CB	PHE	2073	27.141	23.038	33.144	1.00	50.26
ATOM	287	CG	PHE	2073	25.975	22.145	32.858	1.00	49.79
ATOM	288	CD1	PHE	2073	24.687	22.516	33.245	1.00	49.48
ATOM	289	CD2	PHE	2073	26.151	20.945	32.173	1.00	50.37
ATOM	290	CE1	PHE	2073	23.588	21.703	32.950	1.00	48.27
ATOM	291	CE2	PHE	2073	25.055	20.121	31.870	1.00	50.17

FIG. 5A-35

ATOM	292	CZ	PHE	2073	23.771	20.504	32.261	1.00	48.58
ATOM	293	C	PHE	2073	28.184	25.292	32.923	1.00	50.85
ATOM	294	O	PHE	2073	28.198	25.685	34.093	1.00	50.48
ATOM	295	N	PHE	2074	29.120	25.607	32.032	1.00	50.91
ATOM	296	CA	PHE	2074	30.248	26.470	32.354	1.00	50.99
ATOM	297	CB	PHE	2074	31.549	25.858	31.823	1.00	48.73
ATOM	298	CG	PHE	2074	31.954	24.607	32.539	1.00	46.56
ATOM	299	CD1	PHE	2074	32.724	24.674	33.698	1.00	45.10
ATOM	300	CD2	PHE	2074	31.500	23.364	32.104	1.00	44.31
ATOM	301	CE1	PHE	2074	33.031	23.523	34.417	1.00	43.89
ATOM	302	CE2	PHE	2074	31.801	22.206	32.816	1.00	43.63
ATOM	303	CZ	PHE	2074	32.566	22.286	33.976	1.00	42.76
ATOM	304	C	PHE	2074	29.981	27.803	31.690	1.00	52.87
ATOM	305	O	PHE	2074	30.677	28.794	31.933	1.00	50.58
ATOM	306	N	PHE	2075	28.952	27.817	30.849	1.00	55.76
ATOM	307	CA	PHE	2075	28.581	29.029	30.144	1.00	60.10
ATOM	308	CB	PHE	2075	27.583	28.730	29.035	1.00	60.98
ATOM	309	CG	PHE	2075	27.316	29.903	28.140	1.00	62.93
ATOM	310	CD1	PHE	2075	28.263	30.302	27.195	1.00	63.22
ATOM	311	CD2	PHE	2075	26.117	30.609	28.234	1.00	62.80
ATOM	312	CE1	PHE	2075	28.018	31.387	26.353	1.00	63.93
ATOM	313	CE2	PHE	2075	25.860	31.693	27.401	1.00	63.01
ATOM	314	CZ	PHE	2075	26.812	32.084	26.456	1.00	63.85
ATOM	315	C	PHE	2075	27.965	30.040	31.091	1.00	62.23
ATOM	316	O	PHE	2075	27.030	29.730	31.826	1.00	63.07
ATOM	317	N	ASN	2076	28.510	31.246	31.079	1.00	64.68
ATOM	318	CA	ASN	2076	27.996	32.317	31.908	1.00	66.67
ATOM	319	CB	ASN	2076	29.132	33.233	32.340	1.00	66.15
ATOM	320	CG	ASN	2076	28.644	34.400	33.154	1.00	66.86
ATOM	321	OD1	ASN	2076	27.592	34.967	32.859	1.00	66.78
ATOM	322	ND2	ASN	2076	29.404	34.777	34.178	1.00	66.43
ATOM	323	C	ASN	2076	27.006	33.079	31.025	1.00	68.71
ATOM	324	O	ASN	2076	27.248	33.263	29.834	1.00	69.24
ATOM	325	N	GLU	2077	25.891	33.517	31.598	1.00	70.45
ATOM	326	CA	GLU	2077	24.886	34.228	30.817	1.00	72.19
ATOM	327	CB	GLU	2077	23.483	33.920	31.358	1.00	74.36
ATOM	328	CG	GLU	2077	22.872	32.634	30.804	1.00	76.69
ATOM	329	CD	GLU	2077	22.488	32.758	29.333	1.00	79.10
ATOM	330	OE1	GLU	2077	22.821	33.796	28.715	1.00	79.73
ATOM	331	OE2	GLU	2077	21.856	31.819	28.792	1.00	80.26
ATOM	332	C	GLU	2077	25.087	35.736	30.730	1.00	72.07
ATOM	333	O	GLU	2077	24.696	36.352	29.735	1.00	71.46
ATOM	334	N	ASP	2078	25.692	36.333	31.757	1.00	71.94
ATOM	335	CA	ASP	2078	25.917	37.775	31.745	1.00	71.95
ATOM	336	CB	ASP	2078	26.010	38.338	33.180	1.00	74.09
ATOM	337	CG	ASP	2078	27.156	37.738	33.994	1.00	76.55
ATOM	338	OD1	ASP	2078	27.066	36.552	34.376	1.00	77.76
ATOM	339	OD2	ASP	2078	28.145	38.458	34.265	1.00	76.77
ATOM	340	C	ASP	2078	27.137	38.201	30.912	1.00	70.92
ATOM	341	O	ASP	2078	27.042	39.134	30.119	1.00	71.45
ATOM	342	N	THR	2079	28.273	37.527	31.077	1.00	68.89
ATOM	343	CA	THR	2079	29.461	37.869	30.297	1.00	66.93
ATOM	344	CB	THR	2079	30.756	37.384	30.979	1.00	67.02
ATOM	345	OG1	THR	2079	30.737	35.956	31.080	1.00	66.18
ATOM	346	CG2	THR	2079	30.888	37.985	32.369	1.00	66.05
ATOM	347	C	THR	2079	29.363	37.211	28.923	1.00	65.69
ATOM	348	O	THR	2079	30.145	37.507	28.023	1.00	65.59
ATOM	349	N	LYS	2080	28.390	36.316	28.780	1.00	64.28
ATOM	350	CA	LYS	2080	28.138	35.588	27.537	1.00	63.28
ATOM	351	CB	LYS	2080	27.645	36.545	26.449	1.00	65.55
ATOM	352	CG	LYS	2080	26.389	37.321	26.814	1.00	68.59
ATOM	353	CD	LYS	2080	25.974	38.241	25.672	1.00	71.40

FIG. 5A-36

ATOM	354	CE	LYS	2080	24.909	39.232	26.112	1.00	72.80
ATOM	355	NZ	LYS	2080	25.377	40.088	27.254	1.00	74.44
ATOM	356	C	LYS	2080	29.332	34.798	27.009	1.00	60.94
ATOM	357	O	LYS	2080	29.527	34.691	25.804	1.00	61.65
ATOM	358	N	GLU	2081	30.125	34.238	27.914	1.00	58.53
ATOM	359	CA	GLU	2081	31.296	33.446	27.540	1.00	55.25
ATOM	360	CB	GLU	2081	32.566	34.300	27.645	1.00	55.98
ATOM	361	CG	GLU	2081	32.674	35.023	28.977	1.00	57.85
ATOM	362	CD	GLU	2081	33.967	35.800	29.154	1.00	60.26
ATOM	363	OE1	GLU	2081	34.376	36.521	28.213	1.00	59.52
ATOM	364	OE2	GLU	2081	34.560	35.701	30.256	1.00	60.66
ATOM	365	C	GLU	2081	31.413	32.246	28.477	1.00	52.16
ATOM	366	O	GLU	2081	30.981	32.304	29.629	1.00	50.02
ATOM	367	N	TYR	2082	31.984	31.156	27.984	1.00	49.44
ATOM	368	CA	TYR	2082	32.169	29.975	28.818	1.00	47.50
ATOM	369	CB	TYR	2082	32.456	28.751	27.965	1.00	47.89
ATOM	370	CG	TYR	2082	31.357	28.381	27.018	1.00	49.75
ATOM	371	CD1	TYR	2082	31.349	28.856	25.711	1.00	49.95
ATOM	372	CE1	TYR	2082	30.354	28.464	24.814	1.00	51.85
ATOM	373	CD2	TYR	2082	30.339	27.512	27.417	1.00	50.36
ATOM	374	CE2	TYR	2082	29.342	27.115	26.536	1.00	51.53
ATOM	375	CZ	TYR	2082	29.354	27.590	25.236	1.00	52.93
ATOM	376	OH	TYR	2082	28.377	27.175	24.361	1.00	53.43
ATOM	377	C	TYR	2082	33.362	30.203	29.735	1.00	45.30
ATOM	378	O	TYR	2082	34.365	30.761	29.307	1.00	44.28
ATOM	379	N	PHE	2083	33.257	29.799	30.997	1.00	43.88
ATOM	380	CA	PHE	2083	34.388	29.963	31.895	1.00	43.34
ATOM	381	CB	PHE	2083	34.061	30.883	33.067	1.00	41.69
ATOM	382	CG	PHE	2083	35.269	31.227	33.890	1.00	43.65
ATOM	383	CD1	PHE	2083	36.230	32.112	33.395	1.00	43.82
ATOM	384	CD2	PHE	2083	35.518	30.576	35.096	1.00	42.56
ATOM	385	CE1	PHE	2083	37.430	32.331	34.087	1.00	43.59
ATOM	386	CE2	PHE	2083	36.710	30.784	35.796	1.00	42.94
ATOM	387	CZ	PHE	2083	37.673	31.663	35.290	1.00	43.27
ATOM	388	C	PHE	2083	34.893	28.622	32.434	1.00	43.66
ATOM	389	O	PHE	2083	34.115	27.776	32.857	1.00	43.24
ATOM	390	N	PHE	2084	36.209	28.439	32.397	1.00	44.42
ATOM	391	CA	PHE	2084	36.858	27.223	32.877	1.00	44.29
ATOM	392	CB	PHE	2084	37.394	26.423	31.697	1.00	43.29
ATOM	393	CG	PHE	2084	36.328	25.838	30.827	1.00	43.58
ATOM	394	CD1	PHE	2084	35.635	24.701	31.225	1.00	44.09
ATOM	395	CD2	PHE	2084	36.022	26.418	29.592	1.00	44.98
ATOM	396	CE1	PHE	2084	34.647	24.139	30.400	1.00	44.01
ATOM	397	CE2	PHE	2084	35.042	25.872	28.760	1.00	44.34
ATOM	398	CZ	PHE	2084	34.352	24.728	29.163	1.00	43.58
ATOM	399	C	PHE	2084	38.012	27.571	33.810	1.00	44.88
ATOM	400	O	PHE	2084	38.956	28.259	33.410	1.00	44.42
ATOM	401	N	ASP	2085	37.933	27.097	35.051	1.00	46.48
ATOM	402	CA	ASP	2085	38.983	27.341	36.046	1.00	47.88
ATOM	403	CB	ASP	2085	38.377	27.302	37.452	1.00	49.11
ATOM	404	CG	ASP	2085	39.207	28.073	38.480	1.00	53.94
ATOM	405	OD1	ASP	2085	40.040	28.924	38.087	1.00	55.67
ATOM	406	OD2	ASP	2085	39.008	27.843	39.697	1.00	56.62
ATOM	407	C	ASP	2085	40.054	26.252	35.889	1.00	47.44
ATOM	408	O	ASP	2085	40.358	25.514	36.828	1.00	48.27
ATOM	409	N	ARG	2086	40.611	26.160	34.683	1.00	46.05
ATOM	410	CA	ARG	2086	41.622	25.159	34.350	1.00	45.60
ATOM	411	CB	ARG	2086	41.085	24.201	33.286	1.00	47.86
ATOM	412	CG	ARG	2086	39.682	23.710	33.535	1.00	50.28
ATOM	413	CD	ARG	2086	39.620	22.797	34.738	1.00	51.97
ATOM	414	NE	ARG	2086	40.355	21.559	34.518	1.00	53.65
ATOM	415	CZ	ARG	2086	40.227	20.478	35.282	1.00	55.14

FIG. 5A-37

ATOM	416	NH1	ARG	2086	39.388	20.488	36.311	1.00	55.40
ATOM	417	NH2	ARG	2086	40.938	19.388	35.021	1.00	55.06
ATOM	418	C	ARG	2086	42.874	25.800	33.788	1.00	44.07
ATOM	419	O	ARG	2086	42.927	27.010	33.592	1.00	44.04
ATOM	420	N	ASP	2087	43.869	24.964	33.507	1.00	42.89
ATOM	421	CA	ASP	2087	45.135	25.401	32.922	1.00	41.09
ATOM	422	CB	ASP	2087	46.152	24.259	32.966	1.00	43.03
ATOM	423	CG	ASP	2087	47.397	24.552	32.145	1.00	46.61
ATOM	424	OD1	ASP	2087	48.077	25.568	32.419	1.00	49.17
ATOM	425	OD2	ASP	2087	47.699	23.765	31.220	1.00	48.42
ATOM	426	C	ASP	2087	44.898	25.836	31.466	1.00	38.83
ATOM	427	O	ASP	2087	44.407	25.072	30.648	1.00	36.58
ATOM	428	N	PRO	2088	45.246	27.081	31.131	1.00	39.18
ATOM	429	CD	PRO	2088	45.715	28.173	32.002	1.00	39.02
ATOM	430	CA	PRO	2088	45.034	27.545	29.762	1.00	40.36
ATOM	431	CB	PRO	2088	45.128	29.057	29.896	1.00	39.17
ATOM	432	CG	PRO	2088	46.103	29.238	31.010	1.00	40.19
ATOM	433	C	PRO	2088	45.977	26.988	28.705	1.00	43.06
ATOM	434	O	PRO	2088	45.653	27.014	27.518	1.00	43.51
ATOM	435	N	GLU	2089	47.129	26.466	29.122	1.00	46.23
ATOM	436	CA	GLU	2089	48.086	25.926	28.161	1.00	48.70
ATOM	437	CB	GLU	2089	49.478	25.850	28.773	1.00	52.38
ATOM	438	CG	GLU	2089	50.564	25.737	27.712	1.00	60.05
ATOM	439	CD	GLU	2089	50.635	26.977	26.814	1.00	64.01
ATOM	440	OE1	GLU	2089	50.989	26.833	25.613	1.00	64.50
ATOM	441	OE2	GLU	2089	50.349	28.093	27.317	1.00	64.30
ATOM	442	C	GLU	2089	47.700	24.556	27.596	1.00	48.12
ATOM	443	O	GLU	2089	47.855	24.311	26.399	1.00	48.45
ATOM	444	N	VAL	2090	47.206	23.657	28.442	1.00	46.79
ATOM	445	CA	VAL	2090	46.801	22.347	27.952	1.00	46.24
ATOM	446	CB	VAL	2090	46.674	21.318	29.105	1.00	46.23
ATOM	447	CG1	VAL	2090	46.014	20.030	28.603	1.00	46.75
ATOM	448	CG2	VAL	2090	48.052	20.995	29.643	1.00	46.16
ATOM	449	C	VAL	2090	45.468	22.507	27.224	1.00	45.27
ATOM	450	O	VAL	2090	45.161	21.769	26.282	1.00	44.80
ATOM	451	N	PHE	2091	44.666	23.472	27.658	1.00	43.80
ATOM	452	CA	PHE	2091	43.410	23.707	26.972	1.00	43.18
ATOM	453	CB	PHE	2091	42.645	24.860	27.602	1.00	42.97
ATOM	454	CG	PHE	2091	41.409	25.218	26.848	1.00	43.07
ATOM	455	CD1	PHE	2091	40.228	24.513	27.059	1.00	44.28
ATOM	456	CD2	PHE	2091	41.443	26.206	25.870	1.00	42.21
ATOM	457	CE1	PHE	2091	39.095	24.781	26.305	1.00	45.69
ATOM	458	CE2	PHE	2091	40.318	26.482	25.106	1.00	44.59
ATOM	459	CZ	PHE	2091	39.136	25.765	25.324	1.00	45.12
ATOM	460	C	PHE	2091	43.749	24.065	25.515	1.00	42.61
ATOM	461	O	PHE	2091	43.023	23.716	24.584	1.00	38.82
ATOM	462	N	ARG	2092	44.855	24.778	25.331	1.00	44.18
ATOM	463	CA	ARG	2092	45.290	25.153	23.993	1.00	46.75
ATOM	464	CB	ARG	2092	46.616	25.923	24.048	1.00	48.64
ATOM	465	CG	ARG	2092	47.144	26.367	22.688	1.00	51.36
ATOM	466	CD	ARG	2092	48.448	27.160	22.827	1.00	55.95
ATOM	467	NE	ARG	2092	49.560	26.343	23.311	1.00	59.25
ATOM	468	CZ	ARG	2092	50.156	25.388	22.600	1.00	62.25
ATOM	469	NH1	ARG	2092	49.752	25.123	21.366	1.00	63.09
ATOM	470	NH2	ARG	2092	51.163	24.696	23.118	1.00	64.82
ATOM	471	C	ARG	2092	45.461	23.881	23.165	1.00	46.81
ATOM	472	O	ARG	2092	44.997	23.808	22.033	1.00	46.46
ATOM	473	N	CYS	2093	46.125	22.877	23.728	1.00	46.69
ATOM	474	CA	CYS	2093	46.309	21.631	23.003	1.00	48.63
ATOM	475	CB	CYS	2093	47.270	20.705	23.746	1.00	51.16
ATOM	476	SG	CYS	2093	48.975	21.245	23.580	1.00	63.04
ATOM	477	C	CYS	2093	44.992	20.919	22.749	1.00	46.44

FIG. 5A-38

ATOM	478	O	CYS	2093	44.797	20.350	21.676	1.00	46.33
ATOM	479	N	VAL	2094	44.090	20.950	23.728	1.00	44.87
ATOM	480	CA	VAL	2094	42.790	20.307	23.568	1.00	44.26
ATOM	481	CB	VAL	2094	41.951	20.360	24.874	1.00	44.57
ATOM	482	CG1	VAL	2094	40.483	19.996	24.585	1.00	40.48
ATOM	483	CG2	VAL	2094	42.548	19.402	25.909	1.00	42.87
ATOM	484	C	VAL	2094	42.018	21.006	22.455	1.00	44.58
ATOM	485	O	VAL	2094	41.463	20.356	21.568	1.00	44.35
ATOM	486	N	LEU	2095	41.998	22.334	22.499	1.00	44.79
ATOM	487	CA	LEU	2095	41.301	23.113	21.492	1.00	44.66
ATOM	488	CB	LEU	2095	41.408	24.596	21.820	1.00	43.14
ATOM	489	CG	LEU	2095	40.631	25.559	20.928	1.00	43.26
ATOM	490	CD1	LEU	2095	39.165	25.089	20.777	1.00	40.90
ATOM	491	CD2	LEU	2095	40.721	26.956	21.547	1.00	41.20
ATOM	492	C	LEU	2095	41.866	22.849	20.104	1.00	46.49
ATOM	493	O	LEU	2095	41.123	22.805	19.118	1.00	47.23
ATOM	494	N	ASN	2096	43.179	22.665	20.018	1.00	47.13
ATOM	495	CA	ASN	2096	43.790	22.408	18.726	1.00	49.47
ATOM	496	CB	ASN	2096	45.308	22.554	18.809	1.00	52.19
ATOM	497	CG	ASN	2096	45.758	23.985	18.581	1.00	54.58
ATOM	498	OD1	ASN	2096	45.719	24.827	19.484	1.00	54.76
ATOM	499	ND2	ASN	2096	46.162	24.275	17.350	1.00	58.18
ATOM	500	C	ASN	2096	43.416	21.050	18.161	1.00	49.94
ATOM	501	O	ASN	2096	43.387	20.870	16.941	1.00	49.19
ATOM	502	N	PHE	2097	43.131	20.099	19.049	1.00	49.96
ATOM	503	CA	PHE	2097	42.724	18.762	18.636	1.00	50.35
ATOM	504	CB	PHE	2097	42.497	17.882	19.866	1.00	51.62
ATOM	505	CG	PHE	2097	41.704	16.634	19.582	1.00	52.11
ATOM	506	CD1	PHE	2097	42.216	15.642	18.740	1.00	52.16
ATOM	507	CD2	PHE	2097	40.432	16.466	20.131	1.00	52.05
ATOM	508	CE1	PHE	2097	41.476	14.501	18.446	1.00	52.31
ATOM	509	CE2	PHE	2097	39.679	15.327	19.846	1.00	53.04
ATOM	510	CZ	PHE	2097	40.200	14.341	19.001	1.00	52.62
ATOM	511	C	PHE	2097	41.426	18.881	17.828	1.00	49.93
ATOM	512	O	PHE	2097	41.213	18.165	16.851	1.00	48.91
ATOM	513	N	TYR	2098	40.565	19.800	18.244	1.00	49.49
ATOM	514	CA	TYR	2098	39.305	20.023	17.557	1.00	50.34
ATOM	515	CB	TYR	2098	38.394	20.926	18.387	1.00	50.24
ATOM	516	CG	TYR	2098	37.792	20.251	19.590	1.00	50.63
ATOM	517	CD1	TYR	2098	38.492	20.170	20.797	1.00	50.98
ATOM	518	CE1	TYR	2098	37.932	19.546	21.914	1.00	51.91
ATOM	519	CD2	TYR	2098	36.514	19.689	19.525	1.00	50.67
ATOM	520	CE2	TYR	2098	35.943	19.064	20.633	1.00	51.48
ATOM	521	CZ	TYR	2098	36.656	18.997	21.823	1.00	52.71
ATOM	522	OH	TYR	2098	36.088	18.389	22.916	1.00	55.26
ATOM	523	C	TYR	2098	39.494	20.648	16.180	1.00	50.43
ATOM	524	O	TYR	2098	38.704	20.405	15.268	1.00	50.73
ATOM	525	N	ARG	2099	40.541	21.451	16.035	1.00	50.90
ATOM	526	CA	ARG	2099	40.835	22.130	14.773	1.00	51.75
ATOM	527	CB	ARG	2099	41.703	23.364	15.028	1.00	51.13
ATOM	528	CG	ARG	2099	40.997	24.480	15.740	1.00	50.10
ATOM	529	CD	ARG	2099	41.980	25.384	16.438	1.00	48.25
ATOM	530	NE	ARG	2099	41.301	26.592	16.882	1.00	48.41
ATOM	531	CZ	ARG	2099	41.763	27.414	17.815	1.00	47.23
ATOM	532	NH1	ARG	2099	42.913	27.159	18.419	1.00	46.58
ATOM	533	NH2	ARG	2099	41.075	28.499	18.131	1.00	47.80
ATOM	534	C	ARG	2099	41.552	21.264	13.752	1.00	52.77
ATOM	535	O	ARG	2099	41.294	21.368	12.557	1.00	53.69
ATOM	536	N	THR	2100	42.453	20.412	14.220	1.00	53.25
ATOM	537	CA	THR	2100	43.234	19.587	13.317	1.00	53.48
ATOM	538	CB	THR	2100	44.742	19.852	13.546	1.00	54.62
ATOM	539	OG1	THR	2100	45.156	19.280	14.795	1.00	55.54

FIG. 5A-39

ATOM	540	CG2	THR	2100	45.003	21.353	13.589	1.00	54.99
ATOM	541	C	THR	2100	42.983	18.083	13.387	1.00	53.45
ATOM	542	O	THR	2100	43.429	17.339	12.517	1.00	53.68
ATOM	543	N	GLY	2101	42.270	17.632	14.410	1.00	53.39
ATOM	544	CA	GLY	2101	42.025	16.209	14.540	1.00	52.22
ATOM	545	C	GLY	2101	43.247	15.529	15.129	1.00	52.64
ATOM	546	O	GLY	2101	43.232	14.330	15.391	1.00	52.67
ATOM	547	N	LYS	2102	44.320	16.291	15.326	1.00	53.00
ATOM	548	CA	LYS	2102	45.539	15.739	15.911	1.00	53.16
ATOM	549	CB	LYS	2102	46.774	16.143	15.104	1.00	54.41
ATOM	550	CG	LYS	2102	46.898	15.528	13.715	1.00	57.24
ATOM	551	CD	LYS	2102	46.165	16.355	12.654	1.00	59.87
ATOM	552	CE	LYS	2102	46.613	15.971	11.243	1.00	60.24
ATOM	553	NZ	LYS	2102	48.093	16.109	11.094	1.00	58.40
ATOM	554	C	LYS	2102	45.718	16.225	17.354	1.00	52.43
ATOM	555	O	LYS	2102	45.696	17.431	17.621	1.00	53.08
ATOM	556	N	LEU	2103	45.878	15.286	18.283	1.00	49.93
ATOM	557	CA	LEU	2103	46.085	15.639	19.679	1.00	47.95
ATOM	558	CB	LEU	2103	45.381	14.658	20.623	1.00	47.48
ATOM	559	CG	LEU	2103	45.602	14.962	22.116	1.00	46.43
ATOM	560	CD1	LEU	2103	45.060	16.346	22.438	1.00	43.47
ATOM	561	CD2	LEU	2103	44.934	13.902	22.979	1.00	45.43
ATOM	562	C	LEU	2103	47.575	15.579	19.912	1.00	46.50
ATOM	563	O	LEU	2103	48.187	14.528	19.746	1.00	46.46
ATOM	564	N	HIS	2104	48.157	16.712	20.282	1.00	45.24
ATOM	565	CA	HIS	2104	49.594	16.782	20.521	1.00	45.51
ATOM	566	CB	HIS	2104	50.200	18.021	19.849	1.00	42.06
ATOM	567	CG	HIS	2104	49.973	18.078	18.373	1.00	40.65
ATOM	568	CD2	HIS	2104	49.181	18.881	17.624	1.00	41.67
ATOM	569	ND1	HIS	2104	50.595	17.224	17.490	1.00	39.22
ATOM	570	CE1	HIS	2104	50.200	17.498	16.261	1.00	40.25
ATOM	571	NE2	HIS	2104	49.341	18.500	16.314	1.00	42.04
ATOM	572	C	HIS	2104	49.891	16.843	22.000	1.00	45.93
ATOM	573	O	HIS	2104	49.057	17.266	22.799	1.00	47.15
ATOM	574	N	TYR	2105	51.086	16.407	22.358	1.00	46.46
ATOM	575	CA	TYR	2105	51.514	16.446	23.737	1.00	49.54
ATOM	576	CB	TYR	2105	52.067	15.085	24.183	1.00	50.37
ATOM	577	CG	TYR	2105	52.743	15.151	25.530	1.00	50.94
ATOM	578	CD1	TYR	2105	52.030	15.527	26.680	1.00	50.78
ATOM	579	CE1	TYR	2105	52.674	15.690	27.914	1.00	49.31
ATOM	580	CD2	TYR	2105	54.114	14.928	25.648	1.00	51.24
ATOM	581	CE2	TYR	2105	54.766	15.088	26.878	1.00	51.35
ATOM	582	CZ	TYR	2105	54.042	15.474	28.000	1.00	50.78
ATOM	583	OH	TYR	2105	54.711	15.680	29.186	1.00	49.37
ATOM	584	C	TYR	2105	52.609	17.499	23.848	1.00	51.42
ATOM	585	O	TYR	2105	53.671	17.366	23.228	1.00	52.57
ATOM	586	N	PRO	2106	52.353	18.585	24.601	1.00	52.80
ATOM	587	CD	PRO	2106	51.121	18.942	25.327	1.00	51.74
ATOM	588	CA	PRO	2106	53.381	19.628	24.751	1.00	53.64
ATOM	589	CB	PRO	2106	52.647	20.744	25.502	1.00	52.49
ATOM	590	CG	PRO	2106	51.611	19.985	26.306	1.00	53.36
ATOM	591	C	PRO	2106	54.541	19.049	25.555	1.00	54.68
ATOM	592	O	PRO	2106	54.368	18.677	26.711	1.00	53.16
ATOM	593	N	ARG	2107	55.707	18.952	24.921	1.00	57.13
ATOM	594	CA	ARG	2107	56.904	18.393	25.550	1.00	60.03
ATOM	595	CB	ARG	2107	58.099	18.498	24.581	1.00	62.31
ATOM	596	CG	ARG	2107	58.485	17.175	23.905	1.00	66.91
ATOM	597	CD	ARG	2107	58.443	17.222	22.369	1.00	71.04
ATOM	598	NE	ARG	2107	59.532	18.004	21.773	1.00	74.01
ATOM	599	CZ	ARG	2107	59.716	18.154	20.459	1.00	75.70
ATOM	600	NH1	ARG	2107	58.883	17.577	19.600	1.00	76.35
ATOM	601	NH2	ARG	2107	60.730	18.879	19.994	1.00	75.94

FIG. 5A-40

ATOM	602	C	ARG	2107	57.269	19.039	26.900	1.00	60.08
ATOM	603	O	ARG	2107	57.718	18.364	27.831	1.00	60.26
ATOM	604	N	TYR	2108	57.060	20.344	27.002	1.00	60.19
ATOM	605	CA	TYR	2108	57.389	21.098	28.207	1.00	60.87
ATOM	606	CB	TYR	2108	57.464	22.585	27.846	1.00	63.05
ATOM	607	CG	TYR	2108	56.191	23.140	27.229	1.00	64.08
ATOM	608	CD1	TYR	2108	55.115	23.518	28.029	1.00	64.51
ATOM	609	CE1	TYR	2108	53.929	23.984	27.466	1.00	65.94
ATOM	610	CD2	TYR	2108	56.051	23.246	25.840	1.00	65.34
ATOM	611	CE2	TYR	2108	54.868	23.712	25.261	1.00	65.08
ATOM	612	CZ	TYR	2108	53.810	24.077	26.082	1.00	66.49
ATOM	613	OH	TYR	2108	52.629	24.521	25.524	1.00	67.59
ATOM	614	C	TYR	2108	56.427	20.902	29.375	1.00	60.24
ATOM	615	O	TYR	2108	56.702	21.335	30.494	1.00	61.06
ATOM	616	N	GLU	2109	55.304	20.243	29.128	1.00	58.88
ATOM	617	CA	GLU	2109	54.321	20.049	30.184	1.00	56.99
ATOM	618	CB	GLU	2109	52.914	20.081	29.585	1.00	58.61
ATOM	619	CG	GLU	2109	51.950	20.913	30.379	1.00	62.37
ATOM	620	CD	GLU	2109	52.300	22.391	30.330	1.00	65.36
ATOM	621	OE1	GLU	2109	53.455	22.758	30.652	1.00	67.39
ATOM	622	OE2	GLU	2109	51.415	23.192	29.969	1.00	67.05
ATOM	623	C	GLU	2109	54.497	18.768	31.001	1.00	54.46
ATOM	624	O	GLU	2109	54.992	17.752	30.504	1.00	53.13
ATOM	625	N	CYS	2110	54.094	18.832	32.265	1.00	51.50
ATOM	626	CA	CYS	2110	54.166	17.673	33.135	1.00	48.47
ATOM	627	CB	CYS	2110	53.869	18.055	34.581	1.00	47.36
ATOM	628	SG	CYS	2110	53.759	16.606	35.670	1.00	42.88
ATOM	629	C	CYS	2110	53.127	16.664	32.658	1.00	48.43
ATOM	630	O	CYS	2110	51.939	16.970	32.559	1.00	47.85
ATOM	631	N	ILE	2111	53.587	15.456	32.367	1.00	48.70
ATOM	632	CA	ILE	2111	52.720	14.395	31.884	1.00	48.06
ATOM	633	CB	ILE	2111	53.529	13.070	31.756	1.00	48.99
ATOM	634	CG2	ILE	2111	53.665	12.401	33.131	1.00	48.17
ATOM	635	CG1	ILE	2111	52.873	12.142	30.732	1.00	49.40
ATOM	636	CD1	ILE	2111	51.506	11.636	31.138	1.00	52.11
ATOM	637	C	ILE	2111	51.520	14.198	32.813	1.00	47.78
ATOM	638	O	ILE	2111	50.417	13.885	32.362	1.00	48.92
ATOM	639	N	SER	2112	51.736	14.401	34.109	1.00	47.11
ATOM	640	CA	SER	2112	50.688	14.225	35.106	1.00	46.67
ATOM	641	CB	SER	2112	51.302	14.240	36.506	1.00	47.65
ATOM	642	OG	SER	2112	50.391	13.738	37.465	1.00	50.07
ATOM	643	C	SER	2112	49.619	15.306	34.994	1.00	46.61
ATOM	644	O	SER	2112	48.414	15.016	35.028	1.00	45.54
ATOM	645	N	ALA	2113	50.062	16.554	34.869	1.00	44.95
ATOM	646	CA	ALA	2113	49.136	17.671	34.727	1.00	43.86
ATOM	647	CB	ALA	2113	49.895	18.990	34.748	1.00	42.09
ATOM	648	C	ALA	2113	48.399	17.505	33.399	1.00	42.94
ATOM	649	O	ALA	2113	47.214	17.814	33.283	1.00	42.65
ATOM	650	N	TYR	2114	49.102	17.000	32.396	1.00	42.34
ATOM	651	CA	TYR	2114	48.494	16.808	31.094	1.00	43.06
ATOM	652	CB	TYR	2114	49.557	16.349	30.103	1.00	38.95
ATOM	653	CG	TYR	2114	49.063	16.161	28.685	1.00	38.35
ATOM	654	CD1	TYR	2114	48.806	17.256	27.859	1.00	37.02
ATOM	655	CE1	TYR	2114	48.410	17.074	26.529	1.00	37.54
ATOM	656	CD2	TYR	2114	48.906	14.879	28.150	1.00	38.50
ATOM	657	CE2	TYR	2114	48.519	14.687	26.831	1.00	38.92
ATOM	658	CZ	TYR	2114	48.272	15.783	26.025	1.00	38.80
ATOM	659	OH	TYR	2114	47.891	15.580	24.719	1.00	38.92
ATOM	660	C	TYR	2114	47.328	15.799	31.143	1.00	44.66
ATOM	661	O	TYR	2114	46.260	16.048	30.577	1.00	43.33
ATOM	662	N	ASP	2115	47.534	14.674	31.826	1.00	46.33
ATOM	663	CA	ASP	2115	46.507	13.636	31.937	1.00	48.49

FIG. 5A-41

ATOM	664	CB	ASP	2115	47.089	12.387	32.594	1.00	50.76
ATOM	665	CG	ASP	2115	47.929	11.565	31.638	1.00	53.02
ATOM	666	OD1	ASP	2115	48.736	10.735	32.110	1.00	55.36
ATOM	667	OD2	ASP	2115	47.773	11.741	30.411	1.00	55.55
ATOM	668	C	ASP	2115	45.279	14.087	32.711	1.00	49.03
ATOM	669	O	ASP	2115	44.150	13.791	32.316	1.00	48.33
ATOM	670	N	ASP	2116	45.499	14.786	33.821	1.00	49.96
ATOM	671	CA	ASP	2116	44.398	15.290	34.629	1.00	51.54
ATOM	672	CB	ASP	2116	44.922	16.133	35.791	1.00	53.49
ATOM	673	CG	ASP	2116	45.635	15.306	36.848	1.00	57.74
ATOM	674	OD1	ASP	2116	46.196	15.912	37.794	1.00	60.44
ATOM	675	OD2	ASP	2116	45.634	14.055	36.742	1.00	58.73
ATOM	676	C	ASP	2116	43.509	16.157	33.742	1.00	52.08
ATOM	677	O	ASP	2116	42.286	16.002	33.724	1.00	52.26
ATOM	678	N	GLU	2117	44.135	17.068	33.001	1.00	51.61
ATOM	679	CA	GLU	2117	43.401	17.950	32.117	1.00	51.66
ATOM	680	CB	GLU	2117	44.339	18.985	31.503	1.00	53.98
ATOM	681	CG	GLU	2117	44.978	19.943	32.518	1.00	57.64
ATOM	682	CD	GLU	2117	43.960	20.714	33.364	1.00	59.95
ATOM	683	OE1	GLU	2117	43.014	21.310	32.798	1.00	60.60
ATOM	684	OE2	GLU	2117	44.118	20.732	34.604	1.00	61.99
ATOM	685	C	GLU	2117	42.675	17.175	31.024	1.00	50.09
ATOM	686	O	GLU	2117	41.492	17.400	30.793	1.00	50.17
ATOM	687	N	LEU	2118	43.369	16.264	30.353	1.00	48.64
ATOM	688	CA	LEU	2118	42.728	15.475	29.304	1.00	48.91
ATOM	689	CB	LEU	2118	43.660	14.361	28.799	1.00	48.08
ATOM	690	CG	LEU	2118	44.757	14.700	27.784	1.00	48.83
ATOM	691	CD1	LEU	2118	45.280	13.413	27.143	1.00	46.67
ATOM	692	CD2	LEU	2118	44.192	15.621	26.716	1.00	48.84
ATOM	693	C	LEU	2118	41.442	14.835	29.832	1.00	49.21
ATOM	694	O	LEU	2118	40.386	14.902	29.189	1.00	48.05
ATOM	695	N	ALA	2119	41.560	14.219	31.009	1.00	49.50
ATOM	696	CA	ALA	2119	40.459	13.530	31.672	1.00	49.04
ATOM	697	CB	ALA	2119	40.915	13.004	33.020	1.00	49.03
ATOM	698	C	ALA	2119	39.244	14.422	31.848	1.00	48.11
ATOM	699	O	ALA	2119	38.115	13.991	31.637	1.00	49.00
ATOM	700	N	PHE	2120	39.474	15.669	32.230	1.00	47.39
ATOM	701	CA	PHE	2120	38.377	16.608	32.419	1.00	46.90
ATOM	702	CB	PHE	2120	38.922	17.929	32.963	1.00	46.52
ATOM	703	CG	PHE	2120	37.930	19.054	32.929	1.00	49.14
ATOM	704	CD1	PHE	2120	36.803	19.035	33.749	1.00	50.85
ATOM	705	CD2	PHE	2120	38.121	20.137	32.079	1.00	48.82
ATOM	706	CE1	PHE	2120	35.882	20.084	33.722	1.00	50.67
ATOM	707	CE2	PHE	2120	37.210	21.189	32.046	1.00	50.34
ATOM	708	CZ	PHE	2120	36.089	21.164	32.868	1.00	50.72
ATOM	709	C	PHE	2120	37.592	16.867	31.126	1.00	46.48
ATOM	710	O	PHE	2120	36.371	17.011	31.156	1.00	46.05
ATOM	711	N	TYR	2121	38.294	16.915	29.998	1.00	46.01
ATOM	712	CA	TYR	2121	37.668	17.191	28.708	1.00	47.31
ATOM	713	CB	TYR	2121	38.677	17.870	27.769	1.00	46.25
ATOM	714	CG	TYR	2121	39.181	19.196	28.289	1.00	45.13
ATOM	715	CD1	TYR	2121	38.353	20.317	28.306	1.00	43.89
ATOM	716	CE1	TYR	2121	38.799	21.531	28.815	1.00	44.00
ATOM	717	CD2	TYR	2121	40.477	19.325	28.796	1.00	44.51
ATOM	718	CE2	TYR	2121	40.937	20.544	29.311	1.00	43.46
ATOM	719	CZ	TYR	2121	40.091	21.639	29.317	1.00	42.85
ATOM	720	OH	TYR	2121	40.516	22.845	29.828	1.00	42.00
ATOM	721	C	TYR	2121	37.094	15.964	28.026	1.00	48.82
ATOM	722	O	TYR	2121	36.633	16.051	26.893	1.00	48.46
ATOM	723	N	GLY	2122	37.129	14.823	28.714	1.00	51.14
ATOM	724	CA	GLY	2122	36.599	13.594	28.149	1.00	52.82
ATOM	725	C	GLY	2122	37.363	13.118	26.926	1.00	55.54

FIG. 5A-42

ATOM	726	O	GLY	2122	36.791	12.530	26.005	1.00	55.79
ATOM	727	N	ILE	2123	38.664	13.379	26.911	1.00	57.10
ATOM	728	CA	ILE	2123	39.500	12.966	25.796	1.00	58.82
ATOM	729	CB	ILE	2123	40.250	14.172	25.197	1.00	59.22
ATOM	730	CG2	ILE	2123	41.219	13.713	24.119	1.00	57.73
ATOM	731	CG1	ILE	2123	39.240	15.165	24.620	1.00	58.76
ATOM	732	CD1	ILE	2123	39.851	16.476	24.219	1.00	59.03
ATOM	733	C	ILE	2123	40.492	11.919	26.283	1.00	60.06
ATOM	734	O	ILE	2123	41.174	12.106	27.292	1.00	60.05
ATOM	735	N	LEU	2124	40.557	10.812	25.557	1.00	62.02
ATOM	736	CA	LEU	2124	41.438	9.714	25.911	1.00	63.91
ATOM	737	CB	LEU	2124	40.824	8.403	25.408	1.00	63.78
ATOM	738	CG	LEU	2124	40.443	7.340	26.451	1.00	64.64
ATOM	739	CD1	LEU	2124	39.965	7.983	27.747	1.00	63.33
ATOM	740	CD2	LEU	2124	39.369	6.440	25.857	1.00	63.81
ATOM	741	C	LEU	2124	42.854	9.887	25.361	1.00	65.23
ATOM	742	O	LEU	2124	43.040	10.173	24.177	1.00	64.84
ATOM	743	N	PRO	2125	43.872	9.718	26.225	1.00	66.82
ATOM	744	CD	PRO	2125	43.755	9.370	27.652	1.00	67.66
ATOM	745	CA	PRO	2125	45.282	9.850	25.841	1.00	68.14
ATOM	746	CB	PRO	2125	46.027	9.414	27.100	1.00	67.95
ATOM	747	CG	PRO	2125	45.097	9.812	28.194	1.00	68.25
ATOM	748	C	PRO	2125	45.574	8.932	24.668	1.00	69.27
ATOM	749	O	PRO	2125	46.510	9.145	23.901	1.00	70.01
ATOM	750	N	GLU	2126	44.756	7.899	24.545	1.00	70.68
ATOM	751	CA	GLU	2126	44.900	6.939	23.472	1.00	71.93
ATOM	752	CB	GLU	2126	43.838	5.848	23.633	1.00	73.67
ATOM	753	CG	GLU	2126	43.570	5.048	22.381	1.00	77.01
ATOM	754	CD	GLU	2126	42.169	5.278	21.849	1.00	79.93
ATOM	755	OE1	GLU	2126	41.883	4.851	20.706	1.00	80.66
ATOM	756	OE2	GLU	2126	41.351	5.883	22.582	1.00	81.43
ATOM	757	C	GLU	2126	44.797	7.613	22.097	1.00	71.15
ATOM	758	O	GLU	2126	45.373	7.133	21.118	1.00	71.49
ATOM	759	N	ILE	2127	44.083	8.733	22.022	1.00	70.25
ATOM	760	CA	ILE	2127	43.934	9.426	20.745	1.00	69.58
ATOM	761	CB	ILE	2127	42.629	10.248	20.671	1.00	69.69
ATOM	762	CG2	ILE	2127	41.463	9.450	21.235	1.00	69.20
ATOM	763	CG1	ILE	2127	42.796	11.550	21.442	1.00	70.46
ATOM	764	CD1	ILE	2127	41.697	12.524	21.180	1.00	72.33
ATOM	765	C	ILE	2127	45.094	10.370	20.414	1.00	68.78
ATOM	766	O	ILE	2127	45.055	11.069	19.402	1.00	67.72
ATOM	767	N	ILE	2128	46.114	10.408	21.267	1.00	67.98
ATOM	768	CA	ILE	2128	47.267	11.258	21.004	1.00	67.62
ATOM	769	CB	ILE	2128	48.349	11.103	22.112	1.00	67.49
ATOM	770	CG2	ILE	2128	49.693	11.645	21.637	1.00	66.99
ATOM	771	CG1	ILE	2128	47.899	11.849	23.371	1.00	66.94
ATOM	772	CD1	ILE	2128	48.882	11.780	24.515	1.00	65.31
ATOM	773	C	ILE	2128	47.830	10.837	19.645	1.00	67.43
ATOM	774	O	ILE	2128	47.840	9.649	19.317	1.00	67.78
ATOM	775	N	GLY	2129	48.274	11.813	18.854	1.00	66.66
ATOM	776	CA	GLY	2129	48.810	11.519	17.536	1.00	66.32
ATOM	777	C	GLY	2129	50.102	10.719	17.531	1.00	66.62
ATOM	778	O	GLY	2129	50.841	10.693	18.519	1.00	65.58
ATOM	779	N	ASP	2130	50.379	10.064	16.408	1.00	66.68
ATOM	780	CA	ASP	2130	51.590	9.264	16.278	1.00	67.29
ATOM	781	CB	ASP	2130	51.555	8.451	14.979	1.00	69.53
ATOM	782	CG	ASP	2130	50.770	7.154	15.130	1.00	72.54
ATOM	783	OD1	ASP	2130	51.222	6.284	15.916	1.00	73.65
ATOM	784	OD2	ASP	2130	49.704	7.007	14.475	1.00	73.11
ATOM	785	C	ASP	2130	52.828	10.145	16.319	1.00	65.80
ATOM	786	O	ASP	2130	53.941	9.673	16.593	1.00	65.98
ATOM	787	N	CYS	2131	52.627	11.433	16.061	1.00	63.80

FIG. 5A-43

ATOM	788	CA	CYS	2131	53.725	12.385	16.077	1.00	61.72
ATOM	789	CB	CYS	2131	53.307	13.674	15.361	1.00	60.65
ATOM	790	SG	CYS	2131	51.725	14.374	15.914	1.00	58.77
ATOM	791	C	CYS	2131	54.163	12.685	17.505	1.00	60.92
ATOM	792	O	CYS	2131	55.296	13.094	17.738	1.00	60.31
ATOM	793	N	CYS	2132	53.266	12.464	18.461	1.00	61.16
ATOM	794	CA	CYS	2132	53.569	12.727	19.864	1.00	62.22
ATOM	795	CB	CYS	2132	52.626	13.804	20.417	1.00	60.61
ATOM	796	SG	CYS	2132	52.941	15.493	19.858	1.00	54.79
ATOM	797	C	CYS	2132	53.490	11.506	20.776	1.00	64.94
ATOM	798	O	CYS	2132	53.977	11.555	21.910	1.00	64.43
ATOM	799	N	TYR	2133	52.885	10.419	20.296	1.00	68.20
ATOM	800	CA	TYR	2133	52.731	9.225	21.125	1.00	72.00
ATOM	801	CB	TYR	2133	51.999	8.114	20.362	1.00	75.99
ATOM	802	CG	TYR	2133	50.886	7.471	21.179	1.00	80.69
ATOM	803	CD1	TYR	2133	49.699	7.042	20.571	1.00	82.62
ATOM	804	CE1	TYR	2133	48.647	6.499	21.329	1.00	84.61
ATOM	805	CD2	TYR	2133	51.002	7.332	22.571	1.00	82.57
ATOM	806	CE2	TYR	2133	49.961	6.788	23.338	1.00	84.20
ATOM	807	CZ	TYR	2133	48.785	6.377	22.712	1.00	85.25
ATOM	808	OH	TYR	2133	47.748	5.851	23.459	1.00	85.38
ATOM	809	C	TYR	2133	54.042	8.698	21.681	1.00	72.30
ATOM	810	O	TYR	2133	54.149	8.443	22.876	1.00	71.80
ATOM	811	N	GLU	2134	55.036	8.532	20.819	1.00	73.49
ATOM	812	CA	GLU	2134	56.336	8.051	21.263	1.00	74.86
ATOM	813	CB	GLU	2134	57.368	8.193	20.138	1.00	77.54
ATOM	814	CG	GLU	2134	57.034	7.440	18.852	1.00	81.48
ATOM	815	CD	GLU	2134	57.258	5.937	18.962	1.00	83.66
ATOM	816	OE1	GLU	2134	57.087	5.239	17.935	1.00	84.67
ATOM	817	OE2	GLU	2134	57.601	5.457	20.067	1.00	84.35
ATOM	818	C	GLU	2134	56.774	8.883	22.464	1.00	74.22
ATOM	819	O	GLU	2134	57.115	8.342	23.511	1.00	73.58
ATOM	820	N	GLU	2135	56.744	10.206	22.306	1.00	74.27
ATOM	821	CA	GLU	2135	57.149	11.127	23.367	1.00	74.37
ATOM	822	CB	GLU	2135	57.131	12.569	22.851	1.00	76.24
ATOM	823	CG	GLU	2135	58.437	13.323	23.081	1.00	78.85
ATOM	824	CD	GLU	2135	58.771	13.502	24.553	1.00	80.42
ATOM	825	OE1	GLU	2135	59.921	13.884	24.869	1.00	80.72
ATOM	826	OE2	GLU	2135	57.880	13.268	25.395	1.00	81.45
ATOM	827	C	GLU	2135	56.275	11.021	24.615	1.00	73.40
ATOM	828	O	GLU	2135	56.778	11.062	25.738	1.00	72.98
ATOM	829	N	TYR	2136	54.968	10.890	24.416	1.00	71.95
ATOM	830	CA	TYR	2136	54.038	10.771	25.528	1.00	71.34
ATOM	831	CB	TYR	2136	52.603	10.726	25.000	1.00	69.80
ATOM	832	CG	TYR	2136	51.567	10.435	26.058	1.00	68.35
ATOM	833	CD1	TYR	2136	50.856	9.237	26.053	1.00	68.86
ATOM	834	CE1	TYR	2136	49.913	8.952	27.038	1.00	68.45
ATOM	835	CD2	TYR	2136	51.308	11.346	27.073	1.00	68.19
ATOM	836	CE2	TYR	2136	50.369	11.073	28.062	1.00	68.81
ATOM	837	CZ	TYR	2136	49.676	9.873	28.042	1.00	68.70
ATOM	838	OH	TYR	2136	48.767	9.592	29.040	1.00	68.27
ATOM	839	C	TYR	2136	54.316	9.533	26.377	1.00	71.99
ATOM	840	O	TYR	2136	54.485	9.632	27.593	1.00	71.15
ATOM	841	N	LYS	2137	54.374	8.373	25.730	1.00	73.64
ATOM	842	CA	LYS	2137	54.611	7.112	26.427	1.00	75.77
ATOM	843	CB	LYS	2137	54.519	5.940	25.445	1.00	77.33
ATOM	844	CG	LYS	2137	53.081	5.620	25.026	1.00	79.51
ATOM	845	CD	LYS	2137	53.006	4.613	23.876	1.00	81.70
ATOM	846	CE	LYS	2137	53.419	3.201	24.295	1.00	82.86
ATOM	847	NZ	LYS	2137	54.868	3.075	24.627	1.00	84.14
ATOM	848	C	LYS	2137	55.921	7.049	27.201	1.00	76.22
ATOM	849	O	LYS	2137	55.991	6.400	28.247	1.00	76.42

FIG. 5A-44

ATOM	850	N	ASP	2138	56.956	7.720	26.701	1.00	76.57
ATOM	851	CA	ASP	2138	58.241	7.725	27.393	1.00	77.38
ATOM	852	CB	ASP	2138	59.344	8.313	26.507	1.00	78.23
ATOM	853	CG	ASP	2138	60.076	7.249	25.705	1.00	79.67
ATOM	854	OD1	ASP	2138	60.381	6.181	26.286	1.00	80.18
ATOM	855	OD2	ASP	2138	60.359	7.483	24.506	1.00	80.17
ATOM	856	C	ASP	2138	58.170	8.512	28.691	1.00	77.69
ATOM	857	O	ASP	2138	58.660	8.061	29.722	1.00	77.72
ATOM	858	N	ARG	2139	57.555	9.689	28.633	1.00	78.49
ATOM	859	CA	ARG	2139	57.417	10.545	29.803	1.00	79.17
ATOM	860	CB	ARG	2139	56.867	11.909	29.395	1.00	79.46
ATOM	861	CG	ARG	2139	57.815	12.723	28.538	1.00	80.04
ATOM	862	CD	ARG	2139	58.904	13.392	29.364	1.00	80.71
ATOM	863	NE	ARG	2139	58.742	14.846	29.379	1.00	82.21
ATOM	864	CZ	ARG	2139	57.889	15.507	30.159	1.00	82.42
ATOM	865	NH1	ARG	2139	57.110	14.849	31.010	1.00	84.27
ATOM	866	NH2	ARG	2139	57.803	16.829	30.082	1.00	81.32
ATOM	867	C	ARG	2139	56.502	9.917	30.839	1.00	79.94
ATOM	868	O	ARG	2139	56.642	10.170	32.034	1.00	79.75
ATOM	869	N	LYS	2140	55.563	9.100	30.379	1.00	81.05
ATOM	870	CA	LYS	2140	54.637	8.440	31.284	1.00	83.03
ATOM	871	CB	LYS	2140	53.436	7.901	30.510	1.00	83.00
ATOM	872	CG	LYS	2140	52.319	7.422	31.409	1.00	83.12
ATOM	873	CD	LYS	2140	51.058	7.137	30.629	1.00	83.96
ATOM	874	CE	LYS	2140	49.887	6.997	31.578	1.00	84.30
ATOM	875	NZ	LYS	2140	49.811	8.192	32.471	1.00	84.69
ATOM	876	C	LYS	2140	55.346	7.295	31.998	1.00	84.77
ATOM	877	O	LYS	2140	55.042	6.969	33.146	1.00	84.82
ATOM	878	N	ARG	2141	56.295	6.688	31.298	1.00	86.87
ATOM	879	CA	ARG	2141	57.074	5.582	31.829	1.00	88.75
ATOM	880	CB	ARG	2141	57.895	4.969	30.697	1.00	89.45
ATOM	881	CG	ARG	2141	58.732	3.762	31.063	1.00	90.78
ATOM	882	CD	ARG	2141	59.418	3.252	29.812	1.00	92.49
ATOM	883	NE	ARG	2141	58.503	3.322	28.671	1.00	94.11
ATOM	884	CZ	ARG	2141	58.768	2.854	27.455	1.00	94.75
ATOM	885	NH1	ARG	2141	59.933	2.269	27.201	1.00	95.31
ATOM	886	NH2	ARG	2141	57.864	2.972	26.489	1.00	94.74
ATOM	887	C	ARG	2141	57.997	6.099	32.930	1.00	89.89
ATOM	888	O	ARG	2141	58.055	5.541	34.028	1.00	90.05
ATOM	889	N	GLU	2142	58.712	7.177	32.628	1.00	90.80
ATOM	890	CA	GLU	2142	59.634	7.772	33.583	1.00	92.46
ATOM	891	CB	GLU	2142	60.365	8.959	32.950	1.00	92.98
ATOM	892	CG	GLU	2142	60.732	8.774	31.483	1.00	94.59
ATOM	893	CD	GLU	2142	61.616	7.558	31.226	1.00	96.09
ATOM	894	OE1	GLU	2142	61.859	7.248	30.037	1.00	96.62
ATOM	895	OE2	GLU	2142	62.070	6.916	32.204	1.00	96.72
ATOM	896	C	GLU	2142	58.869	8.260	34.803	1.00	93.22
ATOM	897	O	GLU	2142	59.431	8.387	35.888	1.00	94.11
ATOM	898	N	ASN	2143	57.580	8.526	34.618	1.00	93.90
ATOM	899	CA	ASN	2143	56.735	9.033	35.693	1.00	94.44
ATOM	900	CB	ASN	2143	55.445	9.616	35.108	1.00	94.93
ATOM	901	CG	ASN	2143	54.706	10.502	36.092	1.00	95.31
ATOM	902	OD1	ASN	2143	55.187	11.579	36.455	1.00	96.12
ATOM	903	ND2	ASN	2143	53.535	10.053	36.534	1.00	94.75
ATOM	904	C	ASN	2143	56.382	7.993	36.752	1.00	94.72
ATOM	905	O	ASN	2143	56.541	8.239	37.951	1.00	94.36
ATOM	906	N	LEU	2144	55.895	6.836	36.311	1.00	95.33
ATOM	907	CA	LEU	2144	55.509	5.776	37.234	1.00	96.13
ATOM	908	CB	LEU	2144	54.921	4.582	36.464	1.00	95.43
ATOM	909	CG	LEU	2144	55.733	3.849	35.387	1.00	95.18
ATOM	910	CD1	LEU	2144	56.916	3.109	36.003	1.00	94.43
ATOM	911	CD2	LEU	2144	54.818	2.865	34.667	1.00	94.66

FIG. 5A-45

ATOM	912	C	LEU	2144	56.659	5.311	38.125	1.00	96.94
ATOM	913	O	LEU	2144	56.436	4.894	39.262	1.00	97.03
ATOM	914	N	GLU	2145	57.887	5.399	37.619	1.00	97.84
ATOM	915	CA	GLU	2145	59.056	4.966	38.382	1.00	98.91
ATOM	916	CB	GLU	2145	60.248	4.751	37.443	1.00	98.78
ATOM	917	CG	GLU	2145	61.026	6.015	37.119	1.00	99.24
ATOM	918	CD	GLU	2145	62.073	5.795	36.043	1.00	100.00
ATOM	919	OE1	GLU	2145	62.933	6.685	35.859	1.00	100.00
ATOM	920	OE2	GLU	2145	62.029	4.738	35.375	1.00	100.00
ATOM	921	C	GLU	2145	59.445	5.949	39.493	1.00	99.41
ATOM	922	O	GLU	2145	58.758	6.988	39.649	1.00	99.68
ATOM	923	OXT	GLU	2145	60.440	5.658	40.199	1.00	99.81
ATOM	1905	ZN+2	ZN2	2300	52.406	15.850	17.745	1.00	60.11
ATOM	924	CB	GLN	3038	50.583	55.822	4.146	1.00	85.88
ATOM	925	CG	GLN	3038	49.706	55.028	3.167	1.00	87.19
ATOM	926	CD	GLN	3038	50.296	54.973	1.768	1.00	87.98
ATOM	927	OE1	GLN	3038	50.421	56.009	1.079	1.00	88.62
ATOM	928	NE2	GLN	3038	50.670	53.760	1.331	1.00	88.26
ATOM	929	C	GLN	3038	50.315	54.172	6.026	1.00	84.68
ATOM	930	O	GLN	3038	49.948	53.240	5.278	1.00	84.19
ATOM	931	N	GLN	3038	50.911	56.593	6.493	1.00	84.63
ATOM	932	CA	GLN	3038	50.140	55.653	5.612	1.00	85.75
ATOM	933	N	ASP	3039	50.877	53.943	7.204	1.00	83.42
ATOM	934	CA	ASP	3039	51.070	52.574	7.633	1.00	81.48
ATOM	935	CB	ASP	3039	52.450	52.413	8.270	1.00	82.36
ATOM	936	CG	ASP	3039	53.021	51.016	8.072	1.00	82.90
ATOM	937	OD1	ASP	3039	52.296	50.140	7.546	1.00	82.87
ATOM	938	OD2	ASP	3039	54.196	50.794	8.437	1.00	83.34
ATOM	939	C	ASP	3039	49.980	52.146	8.611	1.00	80.14
ATOM	940	O	ASP	3039	49.784	52.773	9.657	1.00	80.54
ATOM	941	N	GLU	3040	49.263	51.084	8.250	1.00	77.44
ATOM	942	CA	GLU	3040	48.194	50.532	9.084	1.00	74.97
ATOM	943	CB	GLU	3040	47.183	49.747	8.240	1.00	76.16
ATOM	944	CG	GLU	3040	45.974	50.505	7.741	1.00	77.95
ATOM	945	CD	GLU	3040	45.112	49.642	6.824	1.00	79.88
ATOM	946	OE1	GLU	3040	44.017	50.093	6.418	1.00	80.83
ATOM	947	OE2	GLU	3040	45.537	48.509	6.500	1.00	80.59
ATOM	948	C	GLU	3040	48.747	49.568	10.121	1.00	71.97
ATOM	949	O	GLU	3040	49.749	48.885	9.897	1.00	70.86
ATOM	950	N	LEU	3041	48.070	49.514	11.257	1.00	68.20
ATOM	951	CA	LEU	3041	48.444	48.598	12.311	1.00	64.88
ATOM	952	CB	LEU	3041	48.553	49.331	13.643	1.00	63.27
ATOM	953	CG	LEU	3041	49.229	48.517	14.740	1.00	62.61
ATOM	954	CD1	LEU	3041	50.591	48.022	14.263	1.00	61.42
ATOM	955	CD2	LEU	3041	49.376	49.377	15.970	1.00	61.86
ATOM	956	C	LEU	3041	47.279	47.622	12.323	1.00	63.13
ATOM	957	O	LEU	3041	46.227	47.913	12.896	1.00	63.03
ATOM	958	N	ILE	3042	47.446	46.481	11.656	1.00	61.01
ATOM	959	CA	ILE	3042	46.365	45.506	11.598	1.00	58.63
ATOM	960	CB	ILE	3042	46.350	44.703	10.262	1.00	59.41
ATOM	961	CG2	ILE	3042	46.441	45.645	9.072	1.00	59.89
ATOM	962	CG1	ILE	3042	47.522	43.743	10.196	1.00	60.06
ATOM	963	CD1	ILE	3042	47.412	42.807	9.007	1.00	61.44
ATOM	964	C	ILE	3042	46.401	44.530	12.763	1.00	56.16
ATOM	965	O	ILE	3042	47.455	44.263	13.351	1.00	55.10
ATOM	966	N	VAL	3043	45.217	44.021	13.089	1.00	52.49
ATOM	967	CA	VAL	3043	45.034	43.082	14.173	1.00	49.12
ATOM	968	CB	VAL	3043	43.871	43.515	15.079	1.00	48.58
ATOM	969	CG1	VAL	3043	43.467	42.363	16.007	1.00	46.91
ATOM	970	CG2	VAL	3043	44.285	44.733	15.873	1.00	45.49
ATOM	971	C	VAL	3043	44.756	41.685	13.653	1.00	47.65
ATOM	972	O	VAL	3043	43.837	41.464	12.862	1.00	47.29

FIG. 5A-46

ATOM	973	N	LEU	3044	45.574	40.743	14.096	1.00	46.24
ATOM	974	CA	LEU	3044	45.420	39.355	13.700	1.00	45.12
ATOM	975	CB	LEU	3044	46.763	38.802	13.217	1.00	45.84
ATOM	976	CG	LEU	3044	47.323	39.518	11.983	1.00	48.25
ATOM	977	CD1	LEU	3044	48.735	39.028	11.680	1.00	49.41
ATOM	978	CD2	LEU	3044	46.391	39.273	10.793	1.00	47.73
ATOM	979	C	LEU	3044	44.934	38.590	14.924	1.00	43.51
ATOM	980	O	LEU	3044	45.719	38.278	15.819	1.00	43.59
ATOM	981	N	ASN	3045	43.632	38.335	14.986	1.00	41.34
ATOM	982	CA	ASN	3045	43.063	37.598	16.105	1.00	40.32
ATOM	983	CB	ASN	3045	41.559	37.874	16.253	1.00	41.67
ATOM	984	CG	ASN	3045	40.955	37.155	17.455	1.00	44.28
ATOM	985	OD1	ASN	3045	41.411	36.072	17.840	1.00	43.67
ATOM	986	ND2	ASN	3045	39.922	37.750	18.052	1.00	44.35
ATOM	987	C	ASN	3045	43.265	36.114	15.823	1.00	38.47
ATOM	988	O	ASN	3045	42.580	35.531	14.976	1.00	37.95
ATOM	989	N	VAL	3046	44.201	35.493	16.521	1.00	35.67
ATOM	990	CA	VAL	3046	44.430	34.080	16.294	1.00	33.57
ATOM	991	CB	VAL	3046	45.919	33.779	16.075	1.00	34.19
ATOM	992	CG1	VAL	3046	46.110	32.279	15.823	1.00	32.26
ATOM	993	CG2	VAL	3046	46.469	34.643	14.933	1.00	31.05
ATOM	994	C	VAL	3046	43.959	33.293	17.499	1.00	33.72
ATOM	995	O	VAL	3046	44.570	33.374	18.582	1.00	31.36
ATOM	996	N	SER	3047	42.854	32.563	17.324	1.00	34.10
ATOM	997	CA	SER	3047	42.325	31.722	18.397	1.00	34.26
ATOM	998	CB	SER	3047	43.365	30.644	18.735	1.00	34.87
ATOM	999	OG	SER	3047	42.916	29.769	19.754	1.00	38.04
ATOM	1000	C	SER	3047	42.008	32.540	19.643	1.00	34.18
ATOM	1001	O	SER	3047	41.947	32.007	20.743	1.00	33.22
ATOM	1002	N	GLY	3048	41.811	33.841	19.468	1.00	34.89
ATOM	1003	CA	GLY	3048	41.523	34.689	20.606	1.00	35.40
ATOM	1004	C	GLY	3048	42.725	35.535	20.974	1.00	36.95
ATOM	1005	O	GLY	3048	42.555	36.584	21.596	1.00	37.80
ATOM	1006	N	ARG	3049	43.934	35.079	20.621	1.00	37.94
ATOM	1007	CA	ARG	3049	45.152	35.844	20.900	1.00	40.93
ATOM	1008	CB	ARG	3049	46.403	34.973	20.801	1.00	44.79
ATOM	1009	CG	ARG	3049	46.578	34.019	21.940	1.00	51.65
ATOM	1010	CD	ARG	3049	46.848	34.742	23.247	1.00	55.25
ATOM	1011	NE	ARG	3049	46.304	33.969	24.354	1.00	57.21
ATOM	1012	CZ	ARG	3049	45.019	33.960	24.698	1.00	59.24
ATOM	1013	NH1	ARG	3049	44.142	34.699	24.028	1.00	57.60
ATOM	1014	NH2	ARG	3049	44.606	33.187	25.701	1.00	60.83
ATOM	1015	C	ARG	3049	45.272	36.946	19.862	1.00	41.42
ATOM	1016	O	ARG	3049	45.280	36.669	18.650	1.00	39.63
ATOM	1017	N	ARG	3050	45.360	38.190	20.319	1.00	40.84
ATOM	1018	CA	ARG	3050	45.492	39.280	19.372	1.00	44.16
ATOM	1019	CB	ARG	3050	44.660	40.486	19.818	1.00	47.43
ATOM	1020	CG	ARG	3050	43.154	40.169	19.773	1.00	55.30
ATOM	1021	CD	ARG	3050	42.274	41.416	19.697	1.00	60.47
ATOM	1022	NE	ARG	3050	40.865	41.084	19.468	1.00	64.97
ATOM	1023	CZ	ARG	3050	40.126	40.345	20.294	1.00	68.43
ATOM	1024	NH1	ARG	3050	40.659	39.853	21.407	1.00	70.13
ATOM	1025	NH2	ARG	3050	38.849	40.101	20.017	1.00	69.08
ATOM	1026	C	ARG	3050	46.941	39.668	19.132	1.00	42.77
ATOM	1027	O	ARG	3050	47.706	39.888	20.070	1.00	43.58
ATOM	1028	N	PHE	3051	47.308	39.702	17.853	1.00	41.01
ATOM	1029	CA	PHE	3051	48.649	40.074	17.412	1.00	40.35
ATOM	1030	CB	PHE	3051	49.259	38.960	16.561	1.00	39.21
ATOM	1031	CG	PHE	3051	49.529	37.706	17.316	1.00	39.30
ATOM	1032	CD1	PHE	3051	50.758	37.511	17.942	1.00	39.13
ATOM	1033	CD2	PHE	3051	48.552	36.715	17.416	1.00	40.84
ATOM	1034	CE1	PHE	3051	51.023	36.343	18.660	1.00	38.86

FIG. 5A-47

ATOM	1035	CE2	PHE	3051	48.797	35.539	18.131	1.00	41.02
ATOM	1036	CZ	PHE	3051	50.045	35.352	18.757	1.00	40.47
ATOM	1037	C	PHE	3051	48.493	41.310	16.552	1.00	39.80
ATOM	1038	O	PHE	3051	47.513	41.441	15.830	1.00	38.12
ATOM	1039	N	GLN	3052	49.443	42.223	16.635	1.00	41.63
ATOM	1040	CA	GLN	3052	49.379	43.420	15.820	1.00	43.97
ATOM	1041	CB	GLN	3052	49.102	44.661	16.652	1.00	42.45
ATOM	1042	CG	GLN	3052	47.797	44.617	17.374	1.00	44.21
ATOM	1043	CD	GLN	3052	47.510	45.918	18.061	1.00	44.71
ATOM	1044	OE1	GLN	3052	46.908	46.814	17.477	1.00	45.99
ATOM	1045	NE2	GLN	3052	47.958	46.043	19.307	1.00	45.20
ATOM	1046	C	GLN	3052	50.691	43.604	15.113	1.00	46.21
ATOM	1047	O	GLN	3052	51.757	43.394	15.691	1.00	48.15
ATOM	1048	N	THR	3053	50.604	43.999	13.854	1.00	48.28
ATOM	1049	CA	THR	3053	51.782	44.241	13.047	1.00	50.63
ATOM	1050	CB	THR	3053	52.298	42.935	12.385	1.00	50.02
ATOM	1051	OG1	THR	3053	53.600	43.167	11.839	1.00	50.57
ATOM	1052	CG2	THR	3053	51.373	42.491	11.265	1.00	48.49
ATOM	1053	C	THR	3053	51.375	45.245	11.977	1.00	52.85
ATOM	1054	O	THR	3053	50.179	45.445	11.717	1.00	52.89
ATOM	1055	N	TRP	3054	52.369	45.878	11.362	1.00	54.32
ATOM	1056	CA	TRP	3054	52.105	46.851	10.318	1.00	55.13
ATOM	1057	CB	TRP	3054	53.328	47.740	10.120	1.00	53.53
ATOM	1058	CG	TRP	3054	53.689	48.518	11.343	1.00	51.79
ATOM	1059	CD2	TRP	3054	53.026	49.683	11.832	1.00	51.08
ATOM	1060	CE2	TRP	3054	53.693	50.079	13.013	1.00	51.32
ATOM	1061	CE3	TRP	3054	51.926	50.430	11.391	1.00	51.90
ATOM	1062	CD1	TRP	3054	54.707	48.257	12.221	1.00	51.71
ATOM	1063	NE1	TRP	3054	54.718	49.194	13.228	1.00	50.71
ATOM	1064	CZ2	TRP	3054	53.297	51.195	13.755	1.00	52.71
ATOM	1065	CZ3	TRP	3054	51.530	51.544	12.131	1.00	52.01
ATOM	1066	CH2	TRP	3054	52.214	51.913	13.302	1.00	52.64
ATOM	1067	C	TRP	3054	51.755	46.147	9.014	1.00	56.65
ATOM	1068	O	TRP	3054	52.352	45.125	8.673	1.00	56.36
ATOM	1069	N	ARG	3055	50.772	46.686	8.299	1.00	59.18
ATOM	1070	CA	ARG	3055	50.362	46.114	7.023	1.00	62.20
ATOM	1071	CB	ARG	3055	49.366	47.048	6.326	1.00	64.91
ATOM	1072	CG	ARG	3055	48.913	46.546	4.975	1.00	68.74
ATOM	1073	CD	ARG	3055	47.887	47.470	4.343	1.00	73.15
ATOM	1074	NE	ARG	3055	48.463	48.698	3.785	1.00	77.04
ATOM	1075	CZ	ARG	3055	48.699	49.817	4.473	1.00	78.94
ATOM	1076	NH1	ARG	3055	48.415	49.888	5.766	1.00	79.88
ATOM	1077	NH2	ARG	3055	49.204	50.883	3.862	1.00	79.28
ATOM	1078	C	ARG	3055	51.605	45.940	6.156	1.00	62.43
ATOM	1079	O	ARG	3055	51.692	45.035	5.327	1.00	61.61
ATOM	1080	N	THR	3056	52.561	46.838	6.379	1.00	62.73
ATOM	1081	CA	THR	3056	53.841	46.868	5.674	1.00	63.13
ATOM	1082	CB	THR	3056	54.728	48.020	6.201	1.00	64.09
ATOM	1083	OG1	THR	3056	54.194	49.270	5.747	1.00	64.78
ATOM	1084	CG2	THR	3056	56.183	47.833	5.764	1.00	63.58
ATOM	1085	C	THR	3056	54.603	45.569	5.885	1.00	62.88
ATOM	1086	O	THR	3056	55.053	44.938	4.928	1.00	62.96
ATOM	1087	N	THR	3057	54.747	45.184	7.149	1.00	61.85
ATOM	1088	CA	THR	3057	55.461	43.973	7.507	1.00	61.21
ATOM	1089	CB	THR	3057	55.409	43.716	9.031	1.00	61.05
ATOM	1090	OG1	THR	3057	55.791	44.906	9.731	1.00	60.64
ATOM	1091	CG2	THR	3057	56.360	42.591	9.408	1.00	59.52
ATOM	1092	C	THR	3057	54.898	42.757	6.788	1.00	61.89
ATOM	1093	O	THR	3057	55.652	41.926	6.277	1.00	61.24
ATOM	1094	N	LEU	3058	53.574	42.649	6.737	1.00	62.10
ATOM	1095	CA	LEU	3058	52.952	41.494	6.094	1.00	63.18
ATOM	1096	CB	LEU	3058	51.453	41.439	6.395	1.00	61.56

FIG. 5A-48

ATOM	1097	CG	LEU	3058	51.071	41.098	7.833	1.00	61.38
ATOM	1098	CD1	LEU	3058	49.582	40.853	7.906	1.00	60.19
ATOM	1099	CD2	LEU	3058	51.828	39.861	8.297	1.00	61.08
ATOM	1100	C	LEU	3058	53.162	41.467	4.594	1.00	65.06
ATOM	1101	O	LEU	3058	53.230	40.391	3.988	1.00	64.97
ATOM	1102	N	GLU	3059	53.283	42.647	3.995	1.00	67.41
ATOM	1103	CA	GLU	3059	53.476	42.735	2.555	1.00	69.28
ATOM	1104	CB	GLU	3059	53.096	44.129	2.072	1.00	70.55
ATOM	1105	CG	GLU	3059	51.592	44.340	2.032	1.00	73.05
ATOM	1106	CD	GLU	3059	51.208	45.801	1.958	1.00	74.89
ATOM	1107	OE1	GLU	3059	49.998	46.094	1.796	1.00	75.70
ATOM	1108	OE2	GLU	3059	52.117	46.654	2.074	1.00	75.75
ATOM	1109	C	GLU	3059	54.875	42.369	2.081	1.00	69.17
ATOM	1110	O	GLU	3059	55.067	42.092	0.903	1.00	69.42
ATOM	1111	N	ARG	3060	55.844	42.350	2.990	1.00	69.79
ATOM	1112	CA	ARG	3060	57.209	41.993	2.629	1.00	70.63
ATOM	1113	CB	ARG	3060	58.095	41.956	3.867	1.00	70.47
ATOM	1114	CG	ARG	3060	58.326	43.287	4.533	1.00	70.36
ATOM	1115	CD	ARG	3060	59.187	43.079	5.754	1.00	71.14
ATOM	1116	NE	ARG	3060	59.425	44.315	6.483	1.00	72.75
ATOM	1117	CZ	ARG	3060	60.048	44.373	7.655	1.00	74.02
ATOM	1118	NH1	ARG	3060	60.493	43.261	8.229	1.00	74.72
ATOM	1119	NH2	ARG	3060	60.227	45.542	8.256	1.00	75.21
ATOM	1120	C	ARG	3060	57.269	40.633	1.943	1.00	72.01
ATOM	1121	O	ARG	3060	58.180	40.361	1.162	1.00	72.23
ATOM	1122	N	TYR	3061	56.305	39.771	2.245	1.00	73.44
ATOM	1123	CA	TYR	3061	56.276	38.446	1.643	1.00	74.58
ATOM	1124	CB	TYR	3061	56.623	37.365	2.675	1.00	74.41
ATOM	1125	CG	TYR	3061	57.984	37.533	3.288	1.00	74.49
ATOM	1126	CD1	TYR	3061	58.214	38.501	4.265	1.00	75.19
ATOM	1127	CE1	TYR	3061	59.488	38.711	4.786	1.00	75.84
ATOM	1128	CD2	TYR	3061	59.060	36.769	2.849	1.00	74.57
ATOM	1129	CE2	TYR	3061	60.340	36.969	3.361	1.00	75.48
ATOM	1130	CZ	TYR	3061	60.545	37.942	4.326	1.00	76.06
ATOM	1131	OH	TYR	3061	61.807	38.150	4.821	1.00	76.24
ATOM	1132	C	TYR	3061	54.930	38.119	1.026	1.00	75.60
ATOM	1133	O	TYR	3061	54.041	37.600	1.700	1.00	75.99
ATOM	1134	N	PRO	3062	54.752	38.438	-0.263	1.00	76.75
ATOM	1135	CD	PRO	3062	55.653	39.195	-1.151	1.00	77.26
ATOM	1136	CA	PRO	3062	53.482	38.142	-0.932	1.00	77.48
ATOM	1137	CB	PRO	3062	53.551	39.002	-2.187	1.00	77.39
ATOM	1138	CG	PRO	3062	55.017	38.985	-2.507	1.00	77.38
ATOM	1139	C	PRO	3062	53.474	36.644	-1.235	1.00	78.06
ATOM	1140	O	PRO	3062	54.437	35.950	-0.911	1.00	79.05
ATOM	1141	N	ASP	3063	52.406	36.151	-1.850	1.00	77.95
ATOM	1142	CA	ASP	3063	52.274	34.728	-2.181	1.00	78.60
ATOM	1143	CB	ASP	3063	53.548	34.190	-2.856	1.00	80.09
ATOM	1144	CG	ASP	3063	54.450	33.428	-1.895	1.00	82.22
ATOM	1145	OD1	ASP	3063	54.005	32.401	-1.330	1.00	83.44
ATOM	1146	OD2	ASP	3063	55.610	33.855	-1.708	1.00	83.23
ATOM	1147	C	ASP	3063	51.945	33.891	-0.939	1.00	77.65
ATOM	1148	O	ASP	3063	51.389	32.792	-1.049	1.00	78.70
ATOM	1149	N	THR	3064	52.307	34.398	0.239	1.00	75.10
ATOM	1150	CA	THR	3064	51.998	33.705	1.489	1.00	72.43
ATOM	1151	CB	THR	3064	52.933	34.128	2.630	1.00	71.56
ATOM	1152	OG1	THR	3064	52.817	35.541	2.833	1.00	71.11
ATOM	1153	CG2	THR	3064	54.373	33.777	2.303	1.00	70.28
ATOM	1154	C	THR	3064	50.586	34.156	1.831	1.00	71.07
ATOM	1155	O	THR	3064	50.149	35.210	1.373	1.00	71.42
ATOM	1156	N	LEU	3065	49.870	33.379	2.635	1.00	69.42
ATOM	1157	CA	LEU	3065	48.502	33.748	2.980	1.00	67.33
ATOM	1158	CB	LEU	3065	47.865	32.660	3.856	1.00	66.52

FIG. 5A-49

ATOM	1159	CG	LEU	3065	46.419	32.922	4.294	1.00	65.55
ATOM	1160	CD1	LEU	3065	45.617	31.631	4.298	1.00	64.74
ATOM	1161	CD2	LEU	3065	46.424	33.571	5.663	1.00	64.36
ATOM	1162	C	LEU	3065	48.365	35.116	3.654	1.00	66.46
ATOM	1163	O	LEU	3065	47.444	35.868	3.352	1.00	65.93
ATOM	1164	N	LEU	3066	49.284	35.454	4.549	1.00	66.07
ATOM	1165	CA	LEU	3066	49.196	36.727	5.252	1.00	66.33
ATOM	1166	CB	LEU	3066	50.022	36.676	6.536	1.00	64.88
ATOM	1167	CG	LEU	3066	49.387	35.842	7.648	1.00	64.16
ATOM	1168	CD1	LEU	3066	50.242	35.913	8.912	1.00	62.81
ATOM	1169	CD2	LEU	3066	47.980	36.367	7.910	1.00	61.88
ATOM	1170	C	LEU	3066	49.582	37.959	4.450	1.00	67.46
ATOM	1171	O	LEU	3066	49.086	39.053	4.719	1.00	67.47
ATOM	1172	N	GLY	3067	50.461	37.790	3.469	1.00	68.58
ATOM	1173	CA	GLY	3067	50.875	38.925	2.662	1.00	69.45
ATOM	1174	C	GLY	3067	50.253	38.963	1.278	1.00	69.67
ATOM	1175	O	GLY	3067	50.774	39.630	0.391	1.00	69.76
ATOM	1176	N	SER	3068	49.141	38.257	1.093	1.00	70.12
ATOM	1177	CA	SER	3068	48.469	38.206	-0.199	1.00	70.71
ATOM	1178	CB	SER	3068	48.971	37.011	-1.003	1.00	70.76
ATOM	1179	OG	SER	3068	48.441	35.798	-0.489	1.00	70.28
ATOM	1180	C	SER	3068	46.964	38.068	-0.033	1.00	71.46
ATOM	1181	O	SER	3068	46.503	37.134	0.599	1.00	72.99
ATOM	1182	N	THR	3069	46.219	39.005	-0.611	1.00	71.97
ATOM	1183	CA	THR	3069	44.753	39.052	-0.583	1.00	72.07
ATOM	1184	CB	THR	3069	44.211	39.345	-2.001	1.00	72.15
ATOM	1185	OG1	THR	3069	44.641	38.317	-2.905	1.00	72.44
ATOM	1186	CG2	THR	3069	44.727	40.692	-2.494	1.00	71.32
ATOM	1187	C	THR	3069	43.955	37.872	0.003	1.00	72.12
ATOM	1188	O	THR	3069	42.831	38.065	0.462	1.00	71.77
ATOM	1189	N	GLU	3070	44.504	36.659	-0.039	1.00	72.67
ATOM	1190	CA	GLU	3070	43.831	35.488	0.530	1.00	73.64
ATOM	1191	CB	GLU	3070	44.791	34.304	0.647	1.00	75.83
ATOM	1192	CG	GLU	3070	45.114	33.557	-0.623	1.00	79.98
ATOM	1193	CD	GLU	3070	45.853	32.253	-0.330	1.00	82.50
ATOM	1194	OE1	GLU	3070	45.241	31.340	0.275	1.00	82.69
ATOM	1195	OE2	GLU	3070	47.047	32.144	-0.691	1.00	84.45
ATOM	1196	C	GLU	3070	43.297	35.770	1.937	1.00	72.88
ATOM	1197	O	GLU	3070	42.166	35.412	2.265	1.00	72.44
ATOM	1198	N	LYS	3071	44.122	36.402	2.768	1.00	71.70
ATOM	1199	CA	LYS	3071	43.737	36.703	4.138	1.00	71.72
ATOM	1200	CB	LYS	3071	44.848	37.471	4.861	1.00	70.88
ATOM	1201	CG	LYS	3071	45.130	38.855	4.333	1.00	71.14
ATOM	1202	CD	LYS	3071	45.851	39.667	5.394	1.00	71.20
ATOM	1203	CE	LYS	3071	46.303	41.017	4.880	1.00	71.34
ATOM	1204	NZ	LYS	3071	47.450	40.903	3.940	1.00	71.38
ATOM	1205	C	LYS	3071	42.426	37.462	4.274	1.00	71.87
ATOM	1206	O	LYS	3071	41.838	37.492	5.351	1.00	72.20
ATOM	1207	N	GLU	3072	41.960	38.074	3.193	1.00	72.44
ATOM	1208	CA	GLU	3072	40.701	38.810	3.235	1.00	72.28
ATOM	1209	CB	GLU	3072	40.488	39.573	1.928	1.00	73.54
ATOM	1210	CG	GLU	3072	40.764	41.073	2.032	1.00	75.53
ATOM	1211	CD	GLU	3072	42.123	41.401	2.644	1.00	76.82
ATOM	1212	OE1	GLU	3072	43.169	41.045	2.046	1.00	76.51
ATOM	1213	OE2	GLU	3072	42.135	42.024	3.730	1.00	76.77
ATOM	1214	C	GLU	3072	39.550	37.844	3.480	1.00	71.72
ATOM	1215	O	GLU	3072	38.471	38.245	3.901	1.00	71.71
ATOM	1216	N	PHE	3073	39.798	36.567	3.224	1.00	71.61
ATOM	1217	CA	PHE	3073	38.803	35.521	3.427	1.00	72.73
ATOM	1218	CB	PHE	3073	39.342	34.193	2.883	1.00	73.39
ATOM	1219	CG	PHE	3073	38.429	33.016	3.120	1.00	75.45
ATOM	1220	CD1	PHE	3073	37.443	32.679	2.191	1.00	75.32

FIG. 5A-50

ATOM	1221	CD2	PHE	3073	38.553	32.242	4.279	1.00	75.55
ATOM	1222	CE1	PHE	3073	36.593	31.585	2.412	1.00	75.72
ATOM	1223	CE2	PHE	3073	37.709	31.150	4.511	1.00	75.31
ATOM	1224	CZ	PHE	3073	36.728	30.821	3.575	1.00	75.60
ATOM	1225	C	PHE	3073	38.462	35.366	4.917	1.00	73.30
ATOM	1226	O	PHE	3073	37.401	34.846	5.265	1.00	73.40
ATOM	1227	N	PHE	3074	39.366	35.805	5.792	1.00	73.64
ATOM	1228	CA	PHE	3074	39.157	35.704	7.237	1.00	73.71
ATOM	1229	CB	PHE	3074	40.328	34.990	7.927	1.00	69.98
ATOM	1230	CG	PHE	3074	40.856	33.807	7.177	1.00	66.10
ATOM	1231	CD1	PHE	3074	41.644	33.982	6.046	1.00	63.80
ATOM	1232	CD2	PHE	3074	40.564	32.516	7.599	1.00	64.01
ATOM	1233	CE1	PHE	3074	42.132	32.894	5.344	1.00	62.95
ATOM	1234	CE2	PHE	3074	41.048	31.416	6.902	1.00	63.38
ATOM	1235	CZ	PHE	3074	41.835	31.605	5.770	1.00	62.84
ATOM	1236	C	PHE	3074	39.072	37.099	7.807	1.00	75.86
ATOM	1237	O	PHE	3074	40.025	37.573	8.402	1.00	76.77
ATOM	1238	N	PHE	3075	37.938	37.762	7.649	1.00	79.19
ATOM	1239	CA	PHE	3075	37.837	39.121	8.160	1.00	81.80
ATOM	1240	CB	PHE	3075	38.337	40.083	7.076	1.00	81.14
ATOM	1241	CG	PHE	3075	38.520	41.496	7.545	1.00	82.07
ATOM	1242	CD1	PHE	3075	37.426	42.285	7.884	1.00	82.38
ATOM	1243	CD2	PHE	3075	39.795	42.046	7.632	1.00	82.50
ATOM	1244	CE1	PHE	3075	37.599	43.605	8.303	1.00	82.10
ATOM	1245	CE2	PHE	3075	39.980	43.363	8.050	1.00	82.46
ATOM	1246	CZ	PHE	3075	38.880	44.142	8.384	1.00	82.30
ATOM	1247	C	PHE	3075	36.421	39.487	8.583	1.00	83.61
ATOM	1248	O	PHE	3075	35.498	39.380	7.783	1.00	84.62
ATOM	1249	N	ASN	3076	36.247	39.896	9.840	1.00	85.79
ATOM	1250	CA	ASN	3076	34.929	40.315	10.326	1.00	88.27
ATOM	1251	CB	ASN	3076	34.658	39.831	11.759	1.00	88.95
ATOM	1252	CG	ASN	3076	34.790	38.318	11.916	1.00	90.39
ATOM	1253	OD1	ASN	3076	34.567	37.556	10.972	1.00	90.81
ATOM	1254	ND2	ASN	3076	35.136	37.879	13.126	1.00	89.65
ATOM	1255	C	ASN	3076	34.975	41.835	10.311	1.00	89.79
ATOM	1256	O	ASN	3076	35.696	42.442	11.103	1.00	89.95
ATOM	1257	N	GLU	3077	34.216	42.449	9.407	1.00	91.57
ATOM	1258	CA	GLU	3077	34.212	43.908	9.282	1.00	92.90
ATOM	1259	CB	GLU	3077	33.446	44.329	8.022	1.00	94.22
ATOM	1260	CG	GLU	3077	34.105	45.481	7.265	1.00	96.18
ATOM	1261	CD	GLU	3077	33.461	45.746	5.911	1.00	97.56
ATOM	1262	OE1	GLU	3077	32.344	46.315	5.875	1.00	97.85
ATOM	1263	OE2	GLU	3077	34.074	45.374	4.883	1.00	98.21
ATOM	1264	C	GLU	3077	33.640	44.621	10.507	1.00	92.56
ATOM	1265	O	GLU	3077	33.924	45.799	10.740	1.00	92.27
ATOM	1266	N	ASP	3078	32.838	43.903	11.286	1.00	92.66
ATOM	1267	CA	ASP	3078	32.244	44.464	12.495	1.00	92.45
ATOM	1268	CB	ASP	3078	30.821	43.928	12.689	1.00	93.93
ATOM	1269	CG	ASP	3078	30.670	42.490	12.230	1.00	95.05
ATOM	1270	OD1	ASP	3078	31.468	41.623	12.662	1.00	95.30
ATOM	1271	OD2	ASP	3078	29.741	42.234	11.433	1.00	95.42
ATOM	1272	C	ASP	3078	33.098	44.158	13.728	1.00	90.82
ATOM	1273	O	ASP	3078	32.580	43.905	14.817	1.00	91.05
ATOM	1274	N	THR	3079	34.412	44.179	13.528	1.00	88.60
ATOM	1275	CA	THR	3079	35.400	43.943	14.577	1.00	85.91
ATOM	1276	CB	THR	3079	35.634	42.438	14.831	1.00	86.06
ATOM	1277	OG1	THR	3079	35.737	41.758	13.578	1.00	86.97
ATOM	1278	CG2	THR	3079	34.502	41.836	15.645	1.00	85.02
ATOM	1279	C	THR	3079	36.692	44.562	14.064	1.00	83.65
ATOM	1280	O	THR	3079	37.597	44.882	14.836	1.00	83.40
ATOM	1281	N	LYS	3080	36.752	44.739	12.746	1.00	80.88
ATOM	1282	CA	LYS	3080	37.910	45.319	12.076	1.00	78.54

FIG. 5A-51

ATOM	1283	CB	LYS	3080	38.124	46.773	12.523	1.00	80.40
ATOM	1284	CG	LYS	3080	36.954	47.708	12.211	1.00	83.06
ATOM	1285	CD	LYS	3080	36.693	47.855	10.706	1.00	84.70
ATOM	1286	CE	LYS	3080	37.713	48.773	10.032	1.00	85.87
ATOM	1287	NZ	LYS	3080	39.120	48.279	10.151	1.00	86.76
ATOM	1288	C	LYS	3080	39.167	44.501	12.349	1.00	75.69
ATOM	1289	O	LYS	3080	40.226	45.054	12.666	1.00	75.56
ATOM	1290	N	GLU	3081	39.042	43.182	12.220	1.00	71.38
ATOM	1291	CA	GLU	3081	40.169	42.287	12.449	1.00	67.00
ATOM	1292	CB	GLU	3081	40.416	42.119	13.945	1.00	67.39
ATOM	1293	CG	GLU	3081	39.229	41.560	14.680	1.00	68.11
ATOM	1294	CD	GLU	3081	39.500	41.397	16.149	1.00	68.74
ATOM	1295	OE1	GLU	3081	40.111	42.316	16.735	1.00	68.49
ATOM	1296	OE2	GLU	3081	39.092	40.358	16.716	1.00	69.19
ATOM	1297	C	GLU	3081	39.976	40.913	11.836	1.00	62.81
ATOM	1298	O	GLU	3081	38.862	40.396	11.758	1.00	62.11
ATOM	1299	N	TYR	3082	41.087	40.325	11.414	1.00	58.32
ATOM	1300	CA	TYR	3082	41.075	39.001	10.822	1.00	53.31
ATOM	1301	CB	TYR	3082	42.320	38.787	9.956	1.00	53.67
ATOM	1302	CG	TYR	3082	42.552	39.828	8.882	1.00	55.65
ATOM	1303	CD1	TYR	3082	43.092	41.078	9.193	1.00	56.05
ATOM	1304	CE1	TYR	3082	43.360	42.012	8.195	1.00	56.86
ATOM	1305	CD2	TYR	3082	42.277	39.544	7.544	1.00	56.15
ATOM	1306	CE2	TYR	3082	42.540	40.467	6.542	1.00	57.39
ATOM	1307	CZ	TYR	3082	43.083	41.697	6.870	1.00	58.16
ATOM	1308	OH	TYR	3082	43.363	42.603	5.868	1.00	60.04
ATOM	1309	C	TYR	3082	41.069	37.963	11.940	1.00	49.35
ATOM	1310	O	TYR	3082	41.746	38.124	12.947	1.00	46.65
ATOM	1311	N	PHE	3083	40.291	36.907	11.770	1.00	45.87
ATOM	1312	CA	PHE	3083	40.262	35.869	12.772	1.00	44.35
ATOM	1313	CB	PHE	3083	38.866	35.669	13.361	1.00	42.81
ATOM	1314	CG	PHE	3083	38.795	34.510	14.324	1.00	43.31
ATOM	1315	CD1	PHE	3083	39.402	34.594	15.581	1.00	42.99
ATOM	1316	CD2	PHE	3083	38.208	33.302	13.943	1.00	41.85
ATOM	1317	CE1	PHE	3083	39.429	33.492	16.438	1.00	41.77
ATOM	1318	CE2	PHE	3083	38.234	32.201	14.793	1.00	43.29
ATOM	1319	CZ	PHE	3083	38.846	32.295	16.042	1.00	41.19
ATOM	1320	C	PHE	3083	40.735	34.550	12.194	1.00	43.56
ATOM	1321	O	PHE	3083	40.275	34.118	11.142	1.00	42.73
ATOM	1322	N	PHE	3084	41.650	33.912	12.913	1.00	44.36
ATOM	1323	CA	PHE	3084	42.204	32.632	12.510	1.00	45.31
ATOM	1324	CB	PHE	3084	43.712	32.761	12.272	1.00	45.85
ATOM	1325	CG	PHE	3084	44.068	33.615	11.093	1.00	45.39
ATOM	1326	CD1	PHE	3084	44.080	33.078	9.810	1.00	46.46
ATOM	1327	CD2	PHE	3084	44.377	34.961	11.261	1.00	46.34
ATOM	1328	CE1	PHE	3084	44.399	33.873	8.699	1.00	46.96
ATOM	1329	CE2	PHE	3084	44.696	35.766	10.165	1.00	47.11
ATOM	1330	CZ	PHE	3084	44.708	35.223	8.880	1.00	46.93
ATOM	1331	C	PHE	3084	41.937	31.607	13.599	1.00	45.45
ATOM	1332	O	PHE	3084	42.408	31.731	14.728	1.00	46.89
ATOM	1333	N	ASP	3085	41.159	30.597	13.253	1.00	46.12
ATOM	1334	CA	ASP	3085	40.838	29.538	14.182	1.00	46.55
ATOM	1335	CB	ASP	3085	39.510	28.903	13.757	1.00	46.98
ATOM	1336	CG	ASP	3085	38.906	28.014	14.828	1.00	50.33
ATOM	1337	OD1	ASP	3085	39.216	28.203	16.027	1.00	51.77
ATOM	1338	OD2	ASP	3085	38.100	27.129	14.468	1.00	50.66
ATOM	1339	C	ASP	3085	42.005	28.542	14.118	1.00	46.38
ATOM	1340	O	ASP	3085	41.823	27.371	13.793	1.00	45.77
ATOM	1341	N	ARG	3086	43.211	29.035	14.412	1.00	46.71
ATOM	1342	CA	ARG	3086	44.434	28.222	14.391	1.00	46.02
ATOM	1343	CB	ARG	3086	45.403	28.700	13.303	1.00	47.42
ATOM	1344	CG	ARG	3086	44.824	28.968	11.919	1.00	50.24

FIG. 5A-52

ATOM	1345	CD	ARG	3086	44.512	27.716	11.140	1.00	49.79
ATOM	1346	NE	ARG	3086	45.453	26.635	11.399	1.00	52.94
ATOM	1347	CZ	ARG	3086	45.558	25.550	10.637	1.00	53.34
ATOM	1348	NH1	ARG	3086	44.783	25.427	9.570	1.00	52.58
ATOM	1349	NH2	ARG	3086	46.412	24.580	10.950	1.00	52.70
ATOM	1350	C	ARG	3086	45.173	28.326	15.726	1.00	44.60
ATOM	1351	O	ARG	3086	44.773	29.075	16.622	1.00	42.80
ATOM	1352	N	ASP	3087	46.278	27.593	15.839	1.00	43.86
ATOM	1353	CA	ASP	3087	47.070	27.616	17.055	1.00	43.09
ATOM	1354	CB	ASP	3087	48.112	26.514	17.045	1.00	43.16
ATOM	1355	CG	ASP	3087	48.927	26.497	18.320	1.00	46.90
ATOM	1356	OD1	ASP	3087	48.337	26.364	19.415	1.00	47.95
ATOM	1357	OD2	ASP	3087	50.158	26.629	18.237	1.00	49.46
ATOM	1358	C	ASP	3087	47.774	28.955	17.271	1.00	42.73
ATOM	1359	O	ASP	3087	48.552	29.414	16.433	1.00	42.10
ATOM	1360	N	PRO	3088	47.524	29.593	18.420	1.00	42.37
ATOM	1361	CD	PRO	3088	46.575	29.210	19.482	1.00	41.20
ATOM	1362	CA	PRO	3088	48.159	30.885	18.699	1.00	42.63
ATOM	1363	CB	PRO	3088	47.355	31.416	19.883	1.00	40.59
ATOM	1364	CG	PRO	3088	46.907	30.184	20.584	1.00	41.50
ATOM	1365	C	PRO	3088	49.656	30.819	18.991	1.00	44.39
ATOM	1366	O	PRO	3088	50.380	31.780	18.752	1.00	43.38
ATOM	1367	N	GLU	3089	50.118	29.674	19.488	1.00	47.08
ATOM	1368	CA	GLU	3089	51.521	29.505	19.844	1.00	48.63
ATOM	1369	CB	GLU	3089	51.702	28.230	20.671	1.00	51.24
ATOM	1370	CG	GLU	3089	52.792	28.347	21.732	1.00	55.39
ATOM	1371	CD	GLU	3089	52.704	29.664	22.505	1.00	59.25
ATOM	1372	OE1	GLU	3089	53.472	30.600	22.179	1.00	60.78
ATOM	1373	OE2	GLU	3089	51.855	29.770	23.426	1.00	61.26
ATOM	1374	C	GLU	3089	52.471	29.479	18.656	1.00	48.75
ATOM	1375	O	GLU	3089	53.501	30.160	18.661	1.00	48.87
ATOM	1376	N	VAL	3090	52.133	28.692	17.641	1.00	48.59
ATOM	1377	CA	VAL	3090	52.973	28.586	16.453	1.00	48.38
ATOM	1378	CB	VAL	3090	52.529	27.407	15.543	1.00	49.09
ATOM	1379	CG1	VAL	3090	53.586	27.129	14.491	1.00	48.48
ATOM	1380	CG2	VAL	3090	52.294	26.166	16.374	1.00	51.46
ATOM	1381	C	VAL	3090	52.929	29.875	15.639	1.00	46.95
ATOM	1382	O	VAL	3090	53.910	30.235	14.997	1.00	47.89
ATOM	1383	N	PHE	3091	51.799	30.576	15.676	1.00	45.22
ATOM	1384	CA	PHE	3091	51.654	31.817	14.923	1.00	44.04
ATOM	1385	CB	PHE	3091	50.275	32.419	15.165	1.00	43.36
ATOM	1386	CG	PHE	3091	49.953	33.564	14.257	1.00	41.81
ATOM	1387	CD1	PHE	3091	49.561	33.335	12.948	1.00	42.43
ATOM	1388	CD2	PHE	3091	50.074	34.874	14.700	1.00	41.51
ATOM	1389	CE1	PHE	3091	49.293	34.391	12.085	1.00	41.49
ATOM	1390	CE2	PHE	3091	49.811	35.937	13.845	1.00	41.73
ATOM	1391	CZ	PHE	3091	49.418	35.693	12.532	1.00	41.20
ATOM	1392	C	PHE	3091	52.727	32.849	15.276	1.00	43.79
ATOM	1393	O	PHE	3091	53.081	33.684	14.453	1.00	42.27
ATOM	1394	N	ARG	3092	53.241	32.796	16.500	1.00	44.74
ATOM	1395	CA	ARG	3092	54.278	33.732	16.919	1.00	47.11
ATOM	1396	CB	ARG	3092	54.640	33.503	18.387	1.00	49.30
ATOM	1397	CG	ARG	3092	55.475	34.611	18.994	1.00	54.03
ATOM	1398	CD	ARG	3092	56.318	34.108	20.165	1.00	58.04
ATOM	1399	NE	ARG	3092	57.350	33.170	19.721	1.00	62.76
ATOM	1400	CZ	ARG	3092	58.180	32.515	20.529	1.00	65.25
ATOM	1401	NH1	ARG	3092	58.107	32.692	21.838	1.00	66.11
ATOM	1402	NH2	ARG	3092	59.072	31.668	20.028	1.00	66.67
ATOM	1403	C	ARG	3092	55.532	33.580	16.033	1.00	46.80
ATOM	1404	O	ARG	3092	56.171	34.569	15.688	1.00	44.23
ATOM	1405	N	CYS	3093	55.877	32.343	15.667	1.00	47.16
ATOM	1406	CA	CYS	3093	57.037	32.082	14.799	1.00	47.19

FIG. 5A-53

ATOM	1407	CB	CYS	3093	57.360	30.583	14.718	1.00	49.42
ATOM	1408	SG	CYS	3093	57.969	29.858	16.239	1.00	57.76
ATOM	1409	C	CYS	3093	56.736	32.561	13.394	1.00	45.39
ATOM	1410	O	CYS	3093	57.615	33.058	12.693	1.00	44.16
ATOM	1411	N	VAL	3094	55.489	32.382	12.975	1.00	43.91
ATOM	1412	CA	VAL	3094	55.089	32.810	11.652	1.00	44.14
ATOM	1413	CB	VAL	3094	53.630	32.411	11.348	1.00	44.88
ATOM	1414	CG1	VAL	3094	53.154	33.092	10.072	1.00	44.16
ATOM	1415	CG2	VAL	3094	53.532	30.897	11.200	1.00	45.26
ATOM	1416	C	VAL	3094	55.228	34.315	11.561	1.00	43.88
ATOM	1417	O	VAL	3094	55.849	34.833	10.637	1.00	43.99
ATOM	1418	N	LEU	3095	54.667	35.015	12.539	1.00	44.44
ATOM	1419	CA	LEU	3095	54.717	36.465	12.552	1.00	45.68
ATOM	1420	CB	LEU	3095	53.836	37.009	13.676	1.00	46.88
ATOM	1421	CG	LEU	3095	53.532	38.501	13.555	1.00	48.11
ATOM	1422	CD1	LEU	3095	52.804	38.748	12.233	1.00	48.21
ATOM	1423	CD2	LEU	3095	52.682	38.961	14.732	1.00	48.53
ATOM	1424	C	LEU	3095	56.138	37.005	12.689	1.00	46.37
ATOM	1425	O	LEU	3095	56.486	38.009	12.064	1.00	45.37
ATOM	1426	N	ASN	3096	56.957	36.343	13.501	1.00	47.42
ATOM	1427	CA	ASN	3096	58.327	36.778	13.679	1.00	49.62
ATOM	1428	CB	ASN	3096	59.011	35.985	14.793	1.00	51.80
ATOM	1429	CG	ASN	3096	58.616	36.476	16.186	1.00	55.06
ATOM	1430	OD1	ASN	3096	58.524	37.683	16.426	1.00	56.24
ATOM	1431	ND2	ASN	3096	58.396	35.543	17.112	1.00	55.43
ATOM	1432	C	ASN	3096	59.089	36.619	12.370	1.00	50.35
ATOM	1433	O	ASN	3096	60.112	37.275	12.150	1.00	48.90
ATOM	1434	N	PHE	3097	58.580	35.750	11.500	1.00	50.77
ATOM	1435	CA	PHE	3097	59.200	35.521	10.203	1.00	51.36
ATOM	1436	CB	PHE	3097	58.546	34.344	9.492	1.00	51.66
ATOM	1437	CG	PHE	3097	58.848	34.301	8.030	1.00	52.48
ATOM	1438	CD1	PHE	3097	60.135	34.024	7.581	1.00	53.14
ATOM	1439	CD2	PHE	3097	57.865	34.607	7.097	1.00	53.22
ATOM	1440	CE1	PHE	3097	60.441	34.056	6.217	1.00	52.88
ATOM	1441	CE2	PHE	3097	58.159	34.642	5.735	1.00	53.47
ATOM	1442	CZ	PHE	3097	59.451	34.366	5.297	1.00	52.54
ATOM	1443	C	PHE	3097	59.079	36.768	9.328	1.00	52.13
ATOM	1444	O	PHE	3097	60.075	37.251	8.784	1.00	53.47
ATOM	1445	N	TYR	3098	57.863	37.289	9.183	1.00	52.12
ATOM	1446	CA	TYR	3098	57.653	38.491	8.379	1.00	52.08
ATOM	1447	CB	TYR	3098	56.186	38.918	8.391	1.00	50.46
ATOM	1448	CG	TYR	3098	55.298	37.986	7.626	1.00	49.91
ATOM	1449	CD1	TYR	3098	54.863	36.790	8.189	1.00	49.56
ATOM	1450	CE1	TYR	3098	54.086	35.897	7.458	1.00	49.86
ATOM	1451	CD2	TYR	3098	54.935	38.269	6.315	1.00	49.66
ATOM	1452	CE2	TYR	3098	54.163	37.384	5.575	1.00	48.85
ATOM	1453	CZ	TYR	3098	53.742	36.203	6.150	1.00	49.32
ATOM	1454	OH	TYR	3098	52.978	35.330	5.419	1.00	49.77
ATOM	1455	C	TYR	3098	58.490	39.671	8.844	1.00	52.55
ATOM	1456	O	TYR	3098	59.014	40.424	8.026	1.00	53.71
ATOM	1457	N	ARG	3099	58.618	39.840	10.152	1.00	53.00
ATOM	1458	CA	ARG	3099	59.384	40.964	10.657	1.00	54.84
ATOM	1459	CB	ARG	3099	58.905	41.349	12.066	1.00	55.79
ATOM	1460	CG	ARG	3099	58.883	40.218	13.067	1.00	59.67
ATOM	1461	CD	ARG	3099	58.645	40.747	14.474	1.00	61.78
ATOM	1462	NE	ARG	3099	57.358	41.428	14.594	1.00	64.51
ATOM	1463	CZ	ARG	3099	56.273	40.899	15.158	1.00	66.36
ATOM	1464	NH1	ARG	3099	56.315	39.672	15.665	1.00	67.02
ATOM	1465	NH2	ARG	3099	55.141	41.595	15.213	1.00	66.44
ATOM	1466	C	ARG	3099	60.902	40.792	10.651	1.00	54.56
ATOM	1467	O	ARG	3099	61.623	41.777	10.754	1.00	55.79
ATOM	1468	N	THR	3100	61.399	39.566	10.518	1.00	53.95

FIG. 5A-54

ATOM	1469	CA	THR	3100	62.848	39.370	10.520	1.00	53.09
ATOM	1470	CB	THR	3100	63.335	38.599	11.774	1.00	51.84
ATOM	1471	OG1	THR	3100	62.923	37.227	11.694	1.00	49.92
ATOM	1472	CG2	THR	3100	62.779	39.238	13.039	1.00	50.73
ATOM	1473	C	THR	3100	63.385	38.637	9.303	1.00	53.71
ATOM	1474	O	THR	3100	64.592	38.636	9.070	1.00	54.31
ATOM	1475	N	GLY	3101	62.499	38.014	8.532	1.00	53.79
ATOM	1476	CA	GLY	3101	62.941	37.286	7.358	1.00	54.19
ATOM	1477	C	GLY	3101	63.396	35.885	7.711	1.00	55.26
ATOM	1478	O	GLY	3101	63.422	34.997	6.858	1.00	56.41
ATOM	1479	N	LYS	3102	63.757	35.681	8.973	1.00	55.38
ATOM	1480	CA	LYS	3102	64.206	34.371	9.430	1.00	56.28
ATOM	1481	CB	LYS	3102	65.328	34.506	10.464	1.00	57.82
ATOM	1482	CG	LYS	3102	66.380	35.541	10.141	1.00	61.24
ATOM	1483	CD	LYS	3102	67.598	35.383	11.054	1.00	63.57
ATOM	1484	CE	LYS	3102	68.274	34.022	10.840	1.00	64.84
ATOM	1485	NZ	LYS	3102	69.500	33.820	11.678	1.00	65.31
ATOM	1486	C	LYS	3102	63.059	33.588	10.069	1.00	55.11
ATOM	1487	O	LYS	3102	62.295	34.122	10.883	1.00	56.00
ATOM	1488	N	LEU	3103	62.939	32.320	9.696	1.00	52.74
ATOM	1489	CA	LEU	3103	61.912	31.462	10.265	1.00	49.68
ATOM	1490	CB	LEU	3103	61.223	30.651	9.170	1.00	48.84
ATOM	1491	CG	LEU	3103	60.113	29.706	9.623	1.00	48.93
ATOM	1492	CD1	LEU	3103	59.033	30.489	10.351	1.00	48.04
ATOM	1493	CD2	LEU	3103	59.539	28.989	8.415	1.00	48.66
ATOM	1494	C	LEU	3103	62.608	30.529	11.242	1.00	47.72
ATOM	1495	O	LEU	3103	63.492	29.776	10.860	1.00	47.45
ATOM	1496	N	HIS	3104	62.216	30.597	12.507	1.00	46.69
ATOM	1497	CA	HIS	3104	62.809	29.754	13.541	1.00	45.97
ATOM	1498	CB	HIS	3104	63.043	30.565	14.818	1.00	43.83
ATOM	1499	CG	HIS	3104	63.875	31.789	14.602	1.00	44.77
ATOM	1500	CD2	HIS	3104	63.528	33.053	14.259	1.00	43.94
ATOM	1501	ND1	HIS	3104	65.252	31.767	14.629	1.00	44.77
ATOM	1502	CE1	HIS	3104	65.719	32.960	14.307	1.00	43.46
ATOM	1503	NE2	HIS	3104	64.692	33.758	14.076	1.00	45.15
ATOM	1504	C	HIS	3104	61.919	28.561	13.866	1.00	46.31
ATOM	1505	O	HIS	3104	60.742	28.509	13.501	1.00	46.64
ATOM	1506	N	TYR	3105	62.500	27.587	14.546	1.00	46.18
ATOM	1507	CA	TYR	3105	61.759	26.417	14.954	1.00	46.56
ATOM	1508	CB	TYR	3105	62.324	25.150	14.292	1.00	45.78
ATOM	1509	CG	TYR	3105	61.739	23.883	14.873	1.00	45.87
ATOM	1510	CD1	TYR	3105	60.385	23.574	14.711	1.00	44.93
ATOM	1511	CE1	TYR	3105	59.823	22.459	15.333	1.00	45.93
ATOM	1512	CD2	TYR	3105	62.520	23.037	15.664	1.00	45.93
ATOM	1513	CE2	TYR	3105	61.971	21.924	16.286	1.00	46.26
ATOM	1514	CZ	TYR	3105	60.626	21.642	16.122	1.00	46.23
ATOM	1515	OH	TYR	3105	60.092	20.550	16.758	1.00	46.63
ATOM	1516	C	TYR	3105	61.874	26.324	16.472	1.00	47.27
ATOM	1517	O	TYR	3105	62.959	26.087	17.002	1.00	46.80
ATOM	1518	N	PRO	3106	60.762	26.558	17.192	1.00	49.34
ATOM	1519	CD	PRO	3106	59.435	26.936	16.666	1.00	48.71
ATOM	1520	CA	PRO	3106	60.755	26.489	18.662	1.00	51.47
ATOM	1521	CB	PRO	3106	59.448	27.192	19.031	1.00	50.69
ATOM	1522	CG	PRO	3106	58.540	26.811	17.886	1.00	49.49
ATOM	1523	C	PRO	3106	60.788	25.011	19.079	1.00	53.52
ATOM	1524	O	PRO	3106	59.816	24.275	18.876	1.00	52.71
ATOM	1525	N	ARG	3107	61.912	24.587	19.653	1.00	55.69
ATOM	1526	CA	ARG	3107	62.097	23.196	20.045	1.00	58.82
ATOM	1527	CB	ARG	3107	63.510	22.999	20.578	1.00	60.44
ATOM	1528	CG	ARG	3107	63.927	23.979	21.639	1.00	63.65
ATOM	1529	CD	ARG	3107	65.398	23.773	21.946	1.00	66.63
ATOM	1530	NE	ARG	3107	66.197	23.834	20.725	1.00	69.05

FIG. 5A-55

ATOM	1531	CZ	ARG	3107	67.489	23.530	20.653	1.00	71.79
ATOM	1532	NH1	ARG	3107	68.148	23.137	21.740	1.00	72.53
ATOM	1533	NH2	ARG	3107	68.126	23.624	19.492	1.00	71.60
ATOM	1534	C	ARG	3107	61.093	22.565	21.013	1.00	59.70
ATOM	1535	O	ARG	3107	61.165	21.369	21.284	1.00	59.11
ATOM	1536	N	TYR	3108	60.155	23.351	21.526	1.00	60.84
ATOM	1537	CA	TYR	3108	59.160	22.808	22.441	1.00	61.83
ATOM	1538	CB	TYR	3108	58.805	23.852	23.519	1.00	64.01
ATOM	1539	CG	TYR	3108	58.207	25.152	22.988	1.00	65.37
ATOM	1540	CD1	TYR	3108	56.913	25.192	22.465	1.00	65.69
ATOM	1541	CE1	TYR	3108	56.380	26.372	21.945	1.00	66.57
ATOM	1542	CD2	TYR	3108	58.953	26.334	22.981	1.00	66.89
ATOM	1543	CE2	TYR	3108	58.431	27.520	22.466	1.00	67.01
ATOM	1544	CZ	TYR	3108	57.146	27.531	21.947	1.00	67.59
ATOM	1545	OH	TYR	3108	56.637	28.693	21.409	1.00	69.05
ATOM	1546	C	TYR	3108	57.907	22.411	21.651	1.00	61.18
ATOM	1547	O	TYR	3108	56.951	21.869	22.203	1.00	61.08
ATOM	1548	N	GLU	3109	57.925	22.677	20.350	1.00	59.72
ATOM	1549	CA	GLU	3109	56.774	22.384	19.509	1.00	58.79
ATOM	1550	CB	GLU	3109	56.529	23.556	18.544	1.00	61.40
ATOM	1551	CG	GLU	3109	55.103	23.626	18.012	1.00	65.76
ATOM	1552	CD	GLU	3109	54.070	23.686	19.135	1.00	69.33
ATOM	1553	OE1	GLU	3109	53.924	24.760	19.772	1.00	69.51
ATOM	1554	OE2	GLU	3109	53.416	22.648	19.386	1.00	70.74
ATOM	1555	C	GLU	3109	56.903	21.088	18.718	1.00	56.03
ATOM	1556	O	GLU	3109	57.987	20.727	18.280	1.00	54.80
ATOM	1557	N	CYS	3110	55.782	20.394	18.548	1.00	53.04
ATOM	1558	CA	CYS	3110	55.747	19.155	17.787	1.00	50.39
ATOM	1559	CB	CYS	3110	54.399	18.454	17.941	1.00	51.10
ATOM	1560	SG	CYS	3110	54.127	17.142	16.708	1.00	54.99
ATOM	1561	C	CYS	3110	55.954	19.509	16.325	1.00	49.39
ATOM	1562	O	CYS	3110	55.297	20.415	15.781	1.00	47.15
ATOM	1563	N	ILE	3111	56.860	18.779	15.689	1.00	47.33
ATOM	1564	CA	ILE	3111	57.188	19.021	14.300	1.00	47.33
ATOM	1565	CB	ILE	3111	58.297	18.020	13.826	1.00	48.14
ATOM	1566	CG2	ILE	3111	57.698	16.657	13.496	1.00	46.55
ATOM	1567	CG1	ILE	3111	59.048	18.608	12.637	1.00	48.78
ATOM	1568	CD1	ILE	3111	59.994	19.700	13.034	1.00	49.24
ATOM	1569	C	ILE	3111	55.951	18.963	13.386	1.00	46.81
ATOM	1570	O	ILE	3111	55.887	19.684	12.393	1.00	46.21
ATOM	1571	N	SER	3112	54.969	18.125	13.720	1.00	45.72
ATOM	1572	CA	SER	3112	53.758	18.028	12.898	1.00	46.37
ATOM	1573	CB	SER	3112	52.934	16.800	13.269	1.00	46.72
ATOM	1574	OG	SER	3112	53.602	15.623	12.875	1.00	53.75
ATOM	1575	C	SER	3112	52.877	19.256	13.037	1.00	45.62
ATOM	1576	O	SER	3112	52.366	19.773	12.048	1.00	44.28
ATOM	1577	N	ALA	3113	52.686	19.705	14.274	1.00	45.23
ATOM	1578	CA	ALA	3113	51.875	20.886	14.538	1.00	46.33
ATOM	1579	CB	ALA	3113	51.871	21.193	16.030	1.00	45.97
ATOM	1580	C	ALA	3113	52.484	22.043	13.765	1.00	46.02
ATOM	1581	O	ALA	3113	51.785	22.777	13.063	1.00	46.57
ATOM	1582	N	TYR	3114	53.804	22.167	13.888	1.00	46.07
ATOM	1583	CA	TYR	3114	54.582	23.208	13.227	1.00	46.10
ATOM	1584	CB	TYR	3114	56.062	23.021	13.586	1.00	46.01
ATOM	1585	CG	TYR	3114	56.992	24.111	13.106	1.00	45.54
ATOM	1586	CD1	TYR	3114	56.947	25.391	13.663	1.00	45.29
ATOM	1587	CE1	TYR	3114	57.826	26.396	13.236	1.00	44.44
ATOM	1588	CD2	TYR	3114	57.939	23.858	12.103	1.00	44.75
ATOM	1589	CE2	TYR	3114	58.822	24.853	11.667	1.00	44.48
ATOM	1590	CZ	TYR	3114	58.759	26.119	12.238	1.00	45.27
ATOM	1591	OH	TYR	3114	59.617	27.103	11.814	1.00	44.61
ATOM	1592	C	TYR	3114	54.373	23.178	11.707	1.00	47.73

FIG. 5A-56

ATOM	1593	O	TYR	3114	53.977	24.186	11.117	1.00	47.32
ATOM	1594	N	ASP	3115	54.627	22.030	11.077	1.00	49.45
ATOM	1595	CA	ASP	3115	54.448	21.895	9.632	1.00	51.72
ATOM	1596	CB	ASP	3115	54.830	20.494	9.149	1.00	53.37
ATOM	1597	CG	ASP	3115	56.332	20.287	9.060	1.00	56.61
ATOM	1598	OD1	ASP	3115	57.045	21.223	8.628	1.00	58.15
ATOM	1599	OD2	ASP	3115	56.800	19.177	9.405	1.00	59.12
ATOM	1600	C	ASP	3115	53.009	22.178	9.216	1.00	53.14
ATOM	1601	O	ASP	3115	52.768	22.805	8.182	1.00	52.72
ATOM	1602	N	ASP	3116	52.052	21.706	10.010	1.00	54.93
ATOM	1603	CA	ASP	3116	50.639	21.934	9.708	1.00	57.32
ATOM	1604	CB	ASP	3116	49.751	21.367	10.820	1.00	60.27
ATOM	1605	CG	ASP	3116	49.459	19.885	10.642	1.00	63.66
ATOM	1606	OD1	ASP	3116	50.307	19.170	10.053	1.00	65.56
ATOM	1607	OD2	ASP	3116	48.382	19.435	11.101	1.00	66.00
ATOM	1608	C	ASP	3116	50.367	23.425	9.557	1.00	57.36
ATOM	1609	O	ASP	3116	49.748	23.857	8.582	1.00	57.33
ATOM	1610	N	GLU	3117	50.836	24.212	10.521	1.00	56.04
ATOM	1611	CA	GLU	3117	50.628	25.648	10.465	1.00	55.48
ATOM	1612	CB	GLU	3117	51.037	26.298	11.791	1.00	55.62
ATOM	1613	CG	GLU	3117	50.352	25.700	13.028	1.00	56.24
ATOM	1614	CD	GLU	3117	48.820	25.699	12.951	1.00	55.63
ATOM	1615	OE1	GLU	3117	48.208	26.770	12.728	1.00	53.72
ATOM	1616	OE2	GLU	3117	48.227	24.613	13.131	1.00	56.38
ATOM	1617	C	GLU	3117	51.394	26.287	9.301	1.00	54.77
ATOM	1618	O	GLU	3117	50.850	27.133	8.585	1.00	54.46
ATOM	1619	N	LEU	3118	52.649	25.894	9.100	1.00	54.04
ATOM	1620	CA	LEU	3118	53.420	26.467	8.004	1.00	53.36
ATOM	1621	CB	LEU	3118	54.806	25.838	7.924	1.00	52.67
ATOM	1622	CG	LEU	3118	55.791	26.343	8.971	1.00	53.72
ATOM	1623	CD1	LEU	3118	57.199	25.868	8.619	1.00	53.19
ATOM	1624	CD2	LEU	3118	55.733	27.868	9.014	1.00	53.76
ATOM	1625	C	LEU	3118	52.685	26.253	6.693	1.00	53.28
ATOM	1626	O	LEU	3118	52.626	27.145	5.840	1.00	52.48
ATOM	1627	N	ALA	3119	52.121	25.061	6.539	1.00	53.26
ATOM	1628	CA	ALA	3119	51.371	24.725	5.336	1.00	53.56
ATOM	1629	CB	ALA	3119	50.859	23.284	5.423	1.00	51.54
ATOM	1630	C	ALA	3119	50.199	25.697	5.170	1.00	53.67
ATOM	1631	O	ALA	3119	50.029	26.302	4.111	1.00	53.70
ATOM	1632	N	PHE	3120	49.404	25.844	6.228	1.00	54.16
ATOM	1633	CA	PHE	3120	48.246	26.729	6.213	1.00	55.47
ATOM	1634	CB	PHE	3120	47.565	26.731	7.580	1.00	55.34
ATOM	1635	CG	PHE	3120	46.409	27.687	7.684	1.00	55.52
ATOM	1636	CD1	PHE	3120	45.176	27.377	7.116	1.00	55.25
ATOM	1637	CD2	PHE	3120	46.548	28.899	8.362	1.00	55.87
ATOM	1638	CE1	PHE	3120	44.097	28.256	7.222	1.00	54.86
ATOM	1639	CE2	PHE	3120	45.475	29.790	8.475	1.00	55.38
ATOM	1640	CZ	PHE	3120	44.247	29.465	7.903	1.00	55.48
ATOM	1641	C	PHE	3120	48.619	28.156	5.846	1.00	56.46
ATOM	1642	O	PHE	3120	47.909	28.816	5.084	1.00	57.39
ATOM	1643	N	TYR	3121	49.735	28.633	6.384	1.00	57.45
ATOM	1644	CA	TYR	3121	50.166	29.997	6.119	1.00	58.57
ATOM	1645	CB	TYR	3121	51.000	30.518	7.291	1.00	58.75
ATOM	1646	CG	TYR	3121	50.165	30.731	8.531	1.00	58.11
ATOM	1647	CD1	TYR	3121	49.173	31.712	8.562	1.00	58.27
ATOM	1648	CE1	TYR	3121	48.355	31.876	9.677	1.00	58.11
ATOM	1649	CD2	TYR	3121	50.324	29.918	9.651	1.00	57.55
ATOM	1650	CE2	TYR	3121	49.510	30.074	10.770	1.00	57.74
ATOM	1651	CZ	TYR	3121	48.529	31.053	10.776	1.00	57.37
ATOM	1652	OH	TYR	3121	47.722	31.204	11.878	1.00	58.12
ATOM	1653	C	TYR	3121	50.928	30.144	4.822	1.00	59.41
ATOM	1654	O	TYR	3121	51.324	31.248	4.454	1.00	59.83

FIG. 5A-57

ATOM	1655	N	GLY	3122	51.120	29.022	4.132	1.00	60.47
ATOM	1656	CA	GLY	3122	51.822	29.031	2.864	1.00	60.54
ATOM	1657	C	GLY	3122	53.292	29.366	2.981	1.00	61.66
ATOM	1658	O	GLY	3122	53.875	29.937	2.061	1.00	61.80
ATOM	1659	N	ILE	3123	53.897	29.027	4.113	1.00	63.04
ATOM	1660	CA	ILE	3123	55.316	29.295	4.313	1.00	64.42
ATOM	1661	CB	ILE	3123	55.602	29.829	5.729	1.00	63.77
ATOM	1662	CG2	ILE	3123	57.085	30.027	5.922	1.00	63.34
ATOM	1663	CG1	ILE	3123	54.881	31.157	5.935	1.00	64.03
ATOM	1664	CD1	ILE	3123	54.997	31.702	7.350	1.00	65.09
ATOM	1665	C	ILE	3123	56.043	27.979	4.111	1.00	65.61
ATOM	1666	O	ILE	3123	55.635	26.954	4.655	1.00	65.16
ATOM	1667	N	LEU	3124	57.106	28.014	3.314	1.00	67.28
ATOM	1668	CA	LEU	3124	57.890	26.821	3.015	1.00	69.17
ATOM	1669	CB	LEU	3124	58.481	26.924	1.607	1.00	71.19
ATOM	1670	CG	LEU	3124	57.543	26.707	0.409	1.00	72.78
ATOM	1671	CD1	LEU	3124	56.410	27.733	0.406	1.00	72.91
ATOM	1672	CD2	LEU	3124	58.360	26.806	-0.878	1.00	73.00
ATOM	1673	C	LEU	3124	58.999	26.622	4.036	1.00	69.68
ATOM	1674	O	LEU	3124	59.824	27.508	4.251	1.00	69.85
ATOM	1675	N	PRO	3125	59.033	25.446	4.681	1.00	70.17
ATOM	1676	CD	PRO	3125	58.093	24.330	4.492	1.00	70.18
ATOM	1677	CA	PRO	3125	60.038	25.113	5.696	1.00	71.16
ATOM	1678	CB	PRO	3125	59.593	23.732	6.184	1.00	71.46
ATOM	1679	CG	PRO	3125	58.896	23.158	4.991	1.00	70.98
ATOM	1680	C	PRO	3125	61.492	25.142	5.234	1.00	72.28
ATOM	1681	O	PRO	3125	62.400	24.843	6.015	1.00	72.88
ATOM	1682	N	GLU	3126	61.713	25.497	3.971	1.00	73.08
ATOM	1683	CA	GLU	3126	63.069	25.594	3.433	1.00	73.97
ATOM	1684	CB	GLU	3126	63.076	25.414	1.912	1.00	75.54
ATOM	1685	CG	GLU	3126	62.553	24.072	1.440	1.00	78.21
ATOM	1686	CD	GLU	3126	61.049	23.952	1.594	1.00	80.43
ATOM	1687	OE1	GLU	3126	60.325	24.745	0.952	1.00	80.92
ATOM	1688	OE2	GLU	3126	60.590	23.071	2.354	1.00	81.78
ATOM	1689	C	GLU	3126	63.570	26.988	3.779	1.00	73.58
ATOM	1690	O	GLU	3126	64.733	27.327	3.563	1.00	73.67
ATOM	1691	N	ILE	3127	62.661	27.788	4.321	1.00	72.64
ATOM	1692	CA	ILE	3127	62.948	29.153	4.720	1.00	71.86
ATOM	1693	CB	ILE	3127	61.651	29.990	4.686	1.00	73.07
ATOM	1694	CG2	ILE	3127	61.918	31.399	5.173	1.00	73.41
ATOM	1695	CG1	ILE	3127	61.096	30.002	3.255	1.00	74.43
ATOM	1696	CD1	ILE	3127	59.706	30.624	3.104	1.00	74.78
ATOM	1697	C	ILE	3127	63.531	29.160	6.130	1.00	70.29
ATOM	1698	O	ILE	3127	63.972	30.195	6.627	1.00	70.38
ATOM	1699	N	ILE	3128	63.543	27.997	6.771	1.00	68.41
ATOM	1700	CA	ILE	3128	64.063	27.897	8.126	1.00	67.43
ATOM	1701	CB	ILE	3128	63.889	26.462	8.688	1.00	66.91
ATOM	1702	CG2	ILE	3128	64.609	26.319	10.031	1.00	64.80
ATOM	1703	CG1	ILE	3128	62.394	26.169	8.842	1.00	66.70
ATOM	1704	CD1	ILE	3128	62.075	24.927	9.621	1.00	66.89
ATOM	1705	C	ILE	3128	65.522	28.321	8.232	1.00	67.00
ATOM	1706	O	ILE	3128	66.404	27.731	7.608	1.00	66.29
ATOM	1707	N	GLY	3129	65.760	29.358	9.031	1.00	65.88
ATOM	1708	CA	GLY	3129	67.105	29.858	9.224	1.00	65.71
ATOM	1709	C	GLY	3129	68.118	28.771	9.531	1.00	65.72
ATOM	1710	O	GLY	3129	67.786	27.737	10.112	1.00	65.39
ATOM	1711	N	ASP	3130	69.363	29.013	9.131	1.00	65.80
ATOM	1712	CA	ASP	3130	70.459	28.076	9.355	1.00	65.58
ATOM	1713	CB	ASP	3130	71.758	28.648	8.764	1.00	69.23
ATOM	1714	CG	ASP	3130	72.926	27.667	8.843	1.00	73.87
ATOM	1715	OD1	ASP	3130	72.881	26.617	8.150	1.00	76.02
ATOM	1716	OD2	ASP	3130	73.890	27.945	9.601	1.00	76.17

FIG. 5A-58

ATOM	1717	C	ASP	3130	70.631	27.828	10.855	1.00	62.82
ATOM	1718	O	ASP	3130	71.170	26.801	11.273	1.00	62.46
ATOM	1719	N	CYS	3131	70.161	28.782	11.654	1.00	59.80
ATOM	1720	CA	CYS	3131	70.244	28.712	13.112	1.00	56.43
ATOM	1721	CB	CYS	3131	69.860	30.064	13.719	1.00	55.87
ATOM	1722	SG	CYS	3131	68.311	30.754	13.033	1.00	52.85
ATOM	1723	C	CYS	3131	69.322	27.643	13.672	1.00	54.87
ATOM	1724	O	CYS	3131	69.598	27.062	14.719	1.00	54.95
ATOM	1725	N	CYS	3132	68.225	27.388	12.969	1.00	53.29
ATOM	1726	CA	CYS	3132	67.253	26.410	13.423	1.00	53.58
ATOM	1727	CB	CYS	3132	65.865	27.058	13.523	1.00	52.31
ATOM	1728	SG	CYS	3132	65.610	28.011	15.042	1.00	48.71
ATOM	1729	C	CYS	3132	67.150	25.167	12.569	1.00	54.86
ATOM	1730	O	CYS	3132	66.567	24.180	13.008	1.00	54.76
ATOM	1731	N	TYR	3133	67.708	25.204	11.360	1.00	56.30
ATOM	1732	CA	TYR	3133	67.622	24.058	10.461	1.00	58.75
ATOM	1733	CB	TYR	3133	68.405	24.308	9.170	1.00	61.17
ATOM	1734	CG	TYR	3133	68.196	23.197	8.168	1.00	63.91
ATOM	1735	CD1	TYR	3133	66.918	22.922	7.666	1.00	65.09
ATOM	1736	CE1	TYR	3133	66.684	21.826	6.825	1.00	65.60
ATOM	1737	CD2	TYR	3133	69.246	22.355	7.797	1.00	64.85
ATOM	1738	CE2	TYR	3133	69.026	21.256	6.956	1.00	66.42
ATOM	1739	CZ	TYR	3133	67.740	20.994	6.477	1.00	66.85
ATOM	1740	OH	TYR	3133	67.504	19.885	5.686	1.00	67.41
ATOM	1741	C	TYR	3133	68.068	22.721	11.058	1.00	58.97
ATOM	1742	O	TYR	3133	67.335	21.735	10.997	1.00	57.30
ATOM	1743	N	GLU	3134	69.265	22.684	11.630	1.00	60.27
ATOM	1744	CA	GLU	3134	69.768	21.448	12.212	1.00	62.20
ATOM	1745	CB	GLU	3134	71.067	21.711	12.976	1.00	64.50
ATOM	1746	CG	GLU	3134	72.260	20.887	12.486	1.00	69.85
ATOM	1747	CD	GLU	3134	72.075	19.386	12.691	1.00	73.16
ATOM	1748	OE1	GLU	3134	71.866	18.956	13.850	1.00	74.03
ATOM	1749	OE2	GLU	3134	72.144	18.637	11.689	1.00	74.51
ATOM	1750	C	GLU	3134	68.739	20.790	13.131	1.00	62.07
ATOM	1751	O	GLU	3134	68.473	19.595	13.007	1.00	62.03
ATOM	1752	N	GLU	3135	68.156	21.568	14.042	1.00	61.95
ATOM	1753	CA	GLU	3135	67.153	21.045	14.973	1.00	61.21
ATOM	1754	CB	GLU	3135	66.808	22.088	16.041	1.00	64.56
ATOM	1755	CG	GLU	3135	67.245	21.692	17.446	1.00	68.98
ATOM	1756	CD	GLU	3135	66.554	20.432	17.941	1.00	71.87
ATOM	1757	OE1	GLU	3135	65.322	20.470	18.161	1.00	73.44
ATOM	1758	OE2	GLU	3135	67.243	19.401	18.107	1.00	73.71
ATOM	1759	C	GLU	3135	65.876	20.613	14.259	1.00	58.70
ATOM	1760	O	GLU	3135	65.290	19.588	14.593	1.00	57.24
ATOM	1761	N	TYR	3136	65.439	21.404	13.288	1.00	55.83
ATOM	1762	CA	TYR	3136	64.249	21.060	12.533	1.00	55.90
ATOM	1763	CB	TYR	3136	63.953	22.146	11.494	1.00	54.77
ATOM	1764	CG	TYR	3136	62.755	21.850	10.633	1.00	54.87
ATOM	1765	CD1	TYR	3136	61.469	21.943	11.147	1.00	56.18
ATOM	1766	CE1	TYR	3136	60.352	21.632	10.369	1.00	57.52
ATOM	1767	CD2	TYR	3136	62.907	21.438	9.313	1.00	55.91
ATOM	1768	CE2	TYR	3136	61.798	21.120	8.519	1.00	57.16
ATOM	1769	CZ	TYR	3136	60.523	21.220	9.055	1.00	59.03
ATOM	1770	OH	TYR	3136	59.415	20.909	8.292	1.00	60.74
ATOM	1771	C	TYR	3136	64.488	19.716	11.825	1.00	56.32
ATOM	1772	O	TYR	3136	63.613	18.847	11.802	1.00	54.54
ATOM	1773	N	LYS	3137	65.689	19.570	11.258	1.00	57.06
ATOM	1774	CA	LYS	3137	66.115	18.376	10.526	1.00	57.85
ATOM	1775	CB	LYS	3137	67.538	18.600	9.998	1.00	58.71
ATOM	1776	CG	LYS	3137	68.145	17.478	9.160	1.00	59.40
ATOM	1777	CD	LYS	3137	69.284	18.030	8.293	1.00	61.81
ATOM	1778	CE	LYS	3137	70.124	16.947	7.618	1.00	61.24

FIG. 5A-59

ATOM	1779	NZ	LYS	3137	71.056	16.293	8.580	1.00	62.70
ATOM	1780	C	LYS	3137	66.046	17.103	11.377	1.00	58.31
ATOM	1781	O	LYS	3137	65.539	16.072	10.932	1.00	58.65
ATOM	1782	N	ASP	3138	66.549	17.176	12.600	1.00	57.87
ATOM	1783	CA	ASP	3138	66.520	16.031	13.493	1.00	59.25
ATOM	1784	CB	ASP	3138	67.363	16.329	14.728	1.00	60.76
ATOM	1785	CG	ASP	3138	68.841	16.433	14.406	1.00	63.70
ATOM	1786	OD1	ASP	3138	69.176	16.812	13.260	1.00	65.41
ATOM	1787	OD2	ASP	3138	69.670	16.148	15.296	1.00	64.28
ATOM	1788	C	ASP	3138	65.097	15.681	13.910	1.00	59.52
ATOM	1789	O	ASP	3138	64.712	14.513	13.908	1.00	60.68
ATOM	1790	N	ARG	3139	64.321	16.699	14.268	1.00	59.49
ATOM	1791	CA	ARG	3139	62.940	16.513	14.697	1.00	59.65
ATOM	1792	CB	ARG	3139	62.325	17.857	15.125	1.00	61.85
ATOM	1793	CG	ARG	3139	63.089	18.598	16.225	1.00	65.43
ATOM	1794	CD	ARG	3139	62.886	17.981	17.607	1.00	68.42
ATOM	1795	NE	ARG	3139	62.219	16.691	17.527	1.00	72.10
ATOM	1796	CZ	ARG	3139	61.973	15.903	18.572	1.00	74.52
ATOM	1797	NH1	ARG	3139	62.344	16.276	19.796	1.00	74.57
ATOM	1798	NH2	ARG	3139	61.348	14.735	18.394	1.00	75.76
ATOM	1799	C	ARG	3139	62.104	15.914	13.573	1.00	58.60
ATOM	1800	O	ARG	3139	61.262	15.047	13.811	1.00	58.40
ATOM	1801	N	LYS	3140	62.338	16.392	12.355	1.00	57.64
ATOM	1802	CA	LYS	3140	61.623	15.920	11.177	1.00	57.00
ATOM	1803	CB	LYS	3140	61.967	16.804	9.974	1.00	57.12
ATOM	1804	CG	LYS	3140	60.754	17.385	9.252	1.00	57.83
ATOM	1805	CD	LYS	3140	59.940	16.305	8.546	1.00	58.84
ATOM	1806	CE	LYS	3140	58.637	16.863	7.975	1.00	58.97
ATOM	1807	NZ	LYS	3140	58.852	17.964	6.987	1.00	59.21
ATOM	1808	C	LYS	3140	62.001	14.467	10.884	1.00	57.10
ATOM	1809	O	LYS	3140	61.140	13.629	10.613	1.00	56.83
ATOM	1810	N	ARG	3141	63.293	14.171	10.945	1.00	56.92
ATOM	1811	CA	ARG	3141	63.772	12.824	10.694	1.00	57.58
ATOM	1812	CB	ARG	3141	65.301	12.791	10.712	1.00	57.10
ATOM	1813	CG	ARG	3141	65.875	11.392	10.598	1.00	56.29
ATOM	1814	CD	ARG	3141	67.387	11.395	10.511	1.00	56.00
ATOM	1815	NE	ARG	3141	68.024	12.029	11.663	1.00	55.05
ATOM	1816	CZ	ARG	3141	68.733	13.154	11.596	1.00	54.50
ATOM	1817	NH1	ARG	3141	68.895	13.776	10.429	1.00	54.03
ATOM	1818	NH2	ARG	3141	69.286	13.655	12.692	1.00	52.56
ATOM	1819	C	ARG	3141	63.222	11.849	11.728	1.00	58.54
ATOM	1820	O	ARG	3141	62.750	10.768	11.374	1.00	58.10
ATOM	1821	N	GLU	3142	63.289	12.231	13.001	1.00	59.45
ATOM	1822	CA	GLU	3142	62.796	11.394	14.094	1.00	60.83
ATOM	1823	CB	GLU	3142	62.955	12.142	15.419	1.00	63.74
ATOM	1824	CG	GLU	3142	63.134	11.260	16.651	1.00	68.58
ATOM	1825	CD	GLU	3142	64.609	10.999	16.983	1.00	71.70
ATOM	1826	OE1	GLU	3142	64.887	10.305	17.992	1.00	71.17
ATOM	1827	OE2	GLU	3142	65.487	11.495	16.236	1.00	72.94
ATOM	1828	C	GLU	3142	61.312	11.075	13.868	1.00	59.87
ATOM	1829	O	GLU	3142	60.836	9.967	14.133	1.00	58.83
ATOM	1830	N	ASN	3143	60.587	12.070	13.373	1.00	59.11
ATOM	1831	CA	ASN	3143	59.165	11.938	13.103	1.00	58.19
ATOM	1832	CB	ASN	3143	58.577	13.312	12.746	1.00	57.40
ATOM	1833	CG	ASN	3143	57.121	13.239	12.309	1.00	56.74
ATOM	1834	OD1	ASN	3143	56.817	13.202	11.116	1.00	56.39
ATOM	1835	ND2	ASN	3143	56.214	13.215	13.277	1.00	56.74
ATOM	1836	C	ASN	3143	58.944	10.957	11.966	1.00	57.95
ATOM	1837	O	ASN	3143	58.048	10.120	12.031	1.00	57.67
ATOM	1838	N	LEU	3144	59.769	11.068	10.927	1.00	59.10
ATOM	1839	CA	LEU	3144	59.677	10.202	9.754	1.00	60.10
ATOM	1840	CB	LEU	3144	60.658	10.671	8.689	1.00	57.82

Figure 6

MGAVMGTFSSLQTKQRRPSKDKIEDDLEMTMVCHRPEGLEQLEAQTNFTKRELQVLYRG
FKNECPSGVVNEETFKQIYAQFFPHGDASTYAHYLFNAFDTTQTGSVKFEDFVTALSILLRG
TVHEKLRWTFNLYDINKDGYINKEEMMDIVKAIYDMMGKYTYPVLKEDTPRQHVDVFFQK
MDKNKDGIVTLDEFLESCQEDDNIMRSLQLFQNVMEHHHHHH

Figure 7

MLAPADKNKRQDELIVLNVSGRRFQTWRTTLERYPDTLLGST
EKEFFFNEDTKEYFFDRDPEVFRCVLNFYRTGKLHYPRYECIS
AYDDELAIFYGILPEIIGDCCYEEYKDRKRENLEHHHHHH